



Public Utilities

FORTNIGHTLY



April 14, 1938

NEW ENGLAND'S STAND ON FLOOD
CONTROL COMPACTS

By Charles Morris Mills

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What Is the So-called Prudent
Investment Theory?

By Ellsworth Nichols

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Waste in Ill-considered Federal
Public Works Projects. Part II.

By Henry Earle Riggs

105

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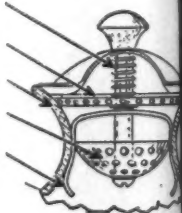
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1. Spring holds disc against neck of bowl.
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5. Spring clip holds strainer in neck of bowl.



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Operating floor of 350,000 lb. boiler showing cross connections from the pulverizers to give maximum flexibility in operation.

FOSTER WHEELER CORPORATION, 165 Broadway, New York

FOSTER  WHEELER

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Associate Editors—ELLEWORTH NICHOLS, FRANCIS X. WELCH
Contributing Editor—OWEN ELY

Public Utilities Fortnightly



VOLUME XXI

April 14, 1938

NUMBER 8

Contents of previous issues of PUBLIC UTILITIES FORTNIGHTLY can be found by consulting the "Industrial Arts Index" in your library.

Utilities Almanack	449
The Builders	(Frontispiece) 450
New England's Stand on Flood Control Compacts.....	Charles Morris Mills 451
What Is the So-called Prudent Investment Theory?	Ellsworth Nichols 463
Waste in Ill-considered Federal Public Works	
Projects, Part II.	Henry Earle Riggs 469
Wire and Wireless Communication	477
Financial News and Comment	Owen Ely 481
What Others Think	487
The Canadian Parliament's "White Paper" on St. Lawrence-Niagara Correspondence	
The March of Events	496
The Latest Utility Rulings	505
Public Utilities Reports	511
Titles and Index	512

Advertising Section

Pages with the Editors	6
In This Issue	10
Remarkable Remarks	12
Industrial Progress	44
Index to Advertisers	72

Q This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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APR. 14, 1938

Bennett

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Big Savings in
Construction and
Maintenance*



*Power
transmission by
Pipe Line!*

OILOSTATIC is not offered as a general substitute for the usual type of conduit construction in which distribution and transmission circuits are carried beneath busy city streets. Rather, it is offered as a reliable, rugged and flexible underground cable construction capable of effecting large savings in appropriate applications.

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Our engineering services are always available. Inquiries on specific projects are invited.

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PATERSON, NEW JERSEY

Pages with the Editors

Nor long ago, Fitzgerald Hall, president of the Nashville, Chattanooga & St. Louis Railway dashed off a sentence which should alone preserve his memory for posterity. Stated Mr. Hall:

"The man who invented Federal aid did more to destroy states' rights than all the hosts who marched with Grant and Sherman."

We have been unable to track down the original instigator of Federal aid because there is so much conflict of authority on the point. Federal aid highway legislation is, of course, a mere infant—the original law being enacted in 1916. But Federal aid for various local purposes extended much further back. There was, for example, the law enacted by Congress in 1802, ostensibly for the purpose of admitting Ohio to the Union. But it went further and provided for the financing of a national highway from Washington, D. C., to the West, which George Washington had conceived as early as 1780.

Most likely candidate for the honor of inventing Federal aid was Alexander Hamilton. It was Hamilton, it will be recalled, who evolved the liberal construction of the "general welfare" clause of the Federal Constitution, which at this late date has proved to be a constitutional life saver for the bulk of the New Deal legislation involving Federal grants. Hamilton (who, incidentally, died insolvent)



CHARLES MORRIS MILLS

Will Uncle Sam cross the Connecticut and the Merrimac?

(SEE PAGE 451)

was not only noted for his nationalistic tendencies in general, but also for his close but successful fight in 1790 to put over the Assumption Act. Under this measure Uncle Sam took over the war debt obligations of the states but in the process took certain privileges away from the states. Uncle Sam has been making bargains like that ever since.

By "bargains" is meant the arrangement whereby the states surrender certain powers which they have previously exercised (or at least thought they had the right to exercise) in consideration for financial aid from the Federal Treasury. Thus, under the Federal aid program the state yields to Federal highway construction and planning standards.

It's the old story of nationalism gradually overcoming states' rights. It has been a peaceful, golden penetration by which the Federal government has accomplished as much if not more than ever could have been accomplished by force—as in the case of the Civil War. When we look back and see how far Uncle Sam has come along the road of nationalism, we must realize that cash seems mightier than the sword in this respect.

Of course, the practical desirability of much of this invasion can hardly be disputed. Uniform roads and nationally planned highways, for instance, are much more sensible than 57 varieties of zigzagging roads which would result from local political logrolling. There are some cases, however, when the desirability of Federal dictation to the states, even though mellowed by Federal subsidy, is still a debatable question.

SUCH an issue is presented in the current controversy over the New England flood control compact which was blocked by the Federal Power Commission on behalf of the administration in the last session of Congress, notwithstanding the fact that it had previously been approved by the Army Engineers. As a compromise, the administration now offers the McCormack-Brown bill which would give 100 per cent Federal contribution to the needed flood control projects in New England, provided, however, that the states would relinquish title to certain lands and certain hydro power rights which the New England states have, so far, refused to give up.

SOME weeks ago we published a thought-provoking dissertation by Oswald Ryan, general counsel of the Federal Power Commission, which stated in an informal way the legal position of the Federal government. In

QUESTIONS AND ANSWERS:

Of Interest to Car Buyers...How Today's Leading Low-Priced Cars Compare in Room, Comfort, Economy

Q. Are "All Three" low-priced cars about alike?

A. Only in price. Plymouth offers many important features that most manufacturers put only in their high-priced lines.

Q. Which is roomiest?

A. Plymouth......nearly 7 inches longer than one; more than 10 inches longer than the other. Seats are wider; leg room and head room are greater.

Q. What about road vibration and jumble?

A. Plymouth uses "live" rubber cushions between body and frame; they effectively absorb this vibration.

Q. Are their brakes the same kind?

A. No. Plymouth has double-action hydraulics...for 10 years conceded to be the safest type made.

Q. Do they differ in economy?

A. Yes. Plymouth owners report 18 to 24 miles per gallon of gas...lowest oil consumption and upkeep.

Q. Do "All Three" have similar shock-absorbers?

A. No. Only Plymouth has shock-absorbers patterned after those on the landing gear of huge air liners.

Q. Do they differ in quietness?

A. Yes. The new Plymouth is famous for its amazing "hushed ride." The car

is sound-proof like a radio studio.

Q. Do they differ in driving ease?

A. Yes. The new Plymouth has faster steering, easier handling...and clutch pressure is greatly reduced.

Q. What features should I look for to insure lowest oil consumption?

A. Four-ring pistons, full-length water jackets, directional cooling, full-pressure lubrication. Only Plymouth offers you all these.

Be sure to drive the new 1938 Plymouth. Telephone any Dodge, De Soto or Chrysler dealer for a demonstration! No obligation. PLYMOUTH DIVISION OF CHRYSLER CORPORATION, Detroit, Michigan.

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Roadking
5-PASSENGER SEDAN
\$685

Detroit delivered price. Plymouth "Roadking" models as low as \$645; De Luxe models slightly higher. Prices include all Federal taxes. State, local taxes not included.

TIME IN MAJOR BOWEN AMATEUR HOUR, C.B.S. NETWORK, THURS., 9 TO 10 P. M., E. S. T.



PLYMOUTH BUILDS GREAT CARS **THE "ROADKING" THE "DE LUXE"**

this issue we have an article setting forth the position of the New England states which, strangely enough in this day and age, are opposed to giving up what they conceive to be their rights even in trade for Federal money. CHARLES MORRIS MILLS, author of this article, has previously written for the FORTNIGHTLY, as well as numerous other publications, such as *This Week*, *Barron's Weekly*, and *The New York Herald Tribune*. Born in Cleveland, and a graduate of Amherst College and Columbia University, Mr. MILLS served as an infantry officer in the 79th Division, A.E.F. He has held a number of posts in public and private service as industrial and public relations counselor. He has not, however, been in the employ, directly or indirectly, of any public utility company at any time.



HENRY EARLE RIGGS

Is the Federal government building modern pyramids through its power program?

(SEE PAGE 469)

THE decision by the Supreme Court early this year on a gas rate case involving the Pacific Gas and Electric Company, in combination with subsequent remarks by President Roosevelt on the subject of valuation, seems to have reopened the flood gates of discussion on the relative merits of Prudent Investment *v.* Reproduction Cost. It seems to be a popular revival, too, judging by the amount of attention our esteemed contemporary periodicals are giving the matter. And we also have felt the pressure of this literary renaissance in the form of numerous manuscripts on a subject which, a bare three years ago, most of us thought was static if not dead.

BEFORE getting into the thick of this revived classical quarrel, the thought struck us, as we read through various manuscripts, that different writers in using the same terms did not seem to be talking about the same thing. In short, there appears to be a considerable difference of opinion about even elementary definitions. Obviously, it was our duty to clear up this fog before going any further, lest the combatants strike wildly at cross purposes, like King Arthur's Hosts in that Last Grey Battle of the West "when brother slew brother and knew not whom he slew."

So we assigned ELLSWORTH NICHOLS of our editorial staff to explain just what the prudent investment theory is (starting page 463). The result may not agree with some other current writers, perhaps not even with some recent White House discussion on this subject. Nevertheless, Mr. NICHOLS writes from the fullness of his legal research, which fact alone should carry its recommendation to FORTNIGHTLY readers.

REGULAR readers have doubtless noticed our new department "Wire and Wireless Communication," which began in the March 31st issue of the FORTNIGHTLY. In installing this new feature, for the primary benefit of those interested in the communications industries, we have taken editorial notice of the rapidly increasing development and widespread resulting interest in the regulatory problems of telephone, telegraph, radio broadcasting, and parallel enterprises. Right now in Washington the FCC is engaged in investigating radio broadcasting, radio-telephone, and, of course, there is the long awaited FCC report to Congress on its special telephone investigation. We trust our subscribers will find "Wire and Wireless Communication" of value.

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

DEPRECIATION reserve should not be created out of capital surplus until all available earned surplus has been used, according to a ruling of the Wisconsin commission, which also holds that the stated value of no-par value stock should be equal for all issues. (See page 225.)

THE opinion of the Wisconsin Supreme Court holding invalid the act creating the Wisconsin Development Authority and conferring executive powers upon that authority appears on page 269.

The next number of this magazine will be out April 28th.

WE also continue in this issue Part II of PROFESSOR HENRY EARLE RIGGS' four-part serial on the usefulness of federally financed power plants. The author is president of American Society of Civil Engineers.

APR. 14, 1938

The Editors



MAKE THE
5-O'CLOCK
TEST -
Let your NERVES Decide



- MORNINGS typewriter clatter sounds business-like.
 - BY NOON the continuous clatter is annoying.
 - BUT BY 3 P. M. you're borrowing aspirin from your stenographer—or she from you.
 - AND BY FIVE noise-battered nerves rebel. Wearily you trudge home—tired not from work, but from typewriter noise.
- Make the five o'clock test. It's free. Have a Remington Noiseless in your office for one day of efficiency and quiet. You'll be less tired that night!

Remington Rand Inc.
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World's Largest Manufacturer of Noiseless and Portable Typewriters



More Remingtons built and sold in 1937 than any other make.

In This Issue



In Feature Articles

New England's stand on flood control compacts, 451.
Conflict of Federal and states' rights, 452.
Surveys of Army Engineers, 454.
Objections of Federal Power Commission to state compacts, 454.
Federal acquisition of lands for flood control projects, 456.
Authority of Federal Power Commission over nonnavigable streams, 459.
The Brown-Casey bill, 460.
The flood control-power issue, 461.
So-called prudent investment theory, 463.
Historical cost and estimated original cost, 465.
Interpretation of U. S. Supreme Court decisions, 466.
Judicial support for prudent investment, 467.
Waste in ill-considered Federal projects, 469.
The Grand Coulee project, 470.
Construction plans for Grand Coulee, 472.
"308 Report" on Columbia river, 474.
Cost of Grand Coulee, 475.
Criticism of Grand Coulee project, 476.
Wire and wireless communication, 477.

In Financial News

Blame for dearth of financing, 481.
Cities Service "de-splits" stock, 483.
Diversity of monthly earnings reports, 483.
Interim earnings statements, 484.
Traction troubles, 485.
Amendment to new tax bill approved, 485.
Corporate news, 485.

In What Others Think

The Canadian Parliament's "White Paper" on St. Lawrence-Niagara correspondence, 487.

In The March of Events

TVA probe approved, 496.
FCC issues questionnaire, 496.
Seven "little TVA's" rejected, 497.
Dam fund defeated, 497.
FPC orders discrimination removed, 497.
TVA approves contracts, 498.
Ontario withdraws bill, 498.
Tokio takes over power industry, 498.
News throughout the states, 498.

In The Latest Utility Rulings

Holding companies must register, 505.
Dividend payments prohibited to protect customers' claims to refund, 505.
Purchase price of stock must be supported by assets, 506.
Water system in real estate subdivision not a public utility, 506.
Breakdown service by electric utility company, 507.
Contracts cannot estop carrier from collecting established rates, 508.
Revenues from water extension, 508.
Classification of electric customers for rate making sustained, 508.
Injunction against commission denied when compliance with order requires court action, 509.
Scheduled charges supersede contract rate after purchase of telephone exchange, 509.
Free bulb service denied, 510.
Miscellaneous rulings, 510.

PREPRINTS FROM PUBLIC UTILITIES REPORTS

Various regulatory rulings by courts and commissions reported in full text, pages 225-288, from 22 P.U.R. (N.S.)



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We are proud to claim the design and development of all-metal public utility bodies as they are accepted in the field today. It was through our sponsorship that these standard flexible units with their innovations of safety, speed, and lower maintenance gained general approval.

As the leading manufacturer of standard public utility bodies and equipment, we are also the only company devoting its efforts exclusively toward their development.

To the buyers of this type of equipment we offer the advantage of a pioneer's experience as well as the facilities for producing at a value never before possible.

Throughout our development we have fortified ourselves with underlying patents to the extent that the production of similar bodies is virtually impossible without encroachment upon our patent rights.



LARGEST MANUFACTURERS OF

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FOR MOTOR VEHICLES

THE AMERICAN COACH & BODY CO.
CLEVELAND, OHIO

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Remarkable Remarks



"There never was in the world two opinions alike."
—MONTAIGNE

WILLIAM P. LAMBERTSON
*U. S. Representative from
Kansas.*

"We vote too much for each other's pet projects."

ROYAL S. COPELAND
U. S. Senator from New York

"For years I have said that to me it is a crime against health to have only one fish day a week."

FREDERICK STEIWER
*Former U. S. Senator from
Oregon.*

"Federal control is a long-range control. It is expensive. It fosters uncertainty and lack of confidence."

EDITORIAL COMMENT
Baltimore Sun.

"They are using the TVA to beat down prices of electricity and the Guffey Coal Act to boost prices of coal."

PHIL FERGUSON
*U. S. Representative from
Oklahoma.*

"The effort to combine in the public's mind the feasibility of power development and flood control has been very subtle."

FITZGERALD HALL
*President, Nashville, Chattanooga
& St. Louis Railway.*

"The man who invented Federal aid did more to destroy states' rights than all the hosts who marched with Grant and Sherman."

CHARLES A. PLUMLEY
*U. S. Representative from
Vermont.*

"The Federal Power Commission's arithmetic grows 'curiouser and curiouser' as one further examines its figures [on Bonneville]."

H. STYLES BRIDGES
*U. S. Senator from New
Hampshire.*

"It may amaze some members of the Senate to learn that the generation and sale of power is not legally a primary function of TVA."

GEORGE A. DONDERO
*U. S. Representative from
Michigan.*

"Private industry could not operate on this [Bonneville] basis; that is, on a basis of simply having indicated prospective use of power."

GORDON BROWNING
Governor of Tennessee.

"I believe in county government. If I had my way I would return to the counties all local government. Home government should be done at home."

Burroughs

NEW LOW-COST PAYROLL MACHINE



**Complete
Social Security Records
at Lower Cost**

**A Typewriter
that provides
4 Payroll Records
in One Writing**

THE PAYROLL

**EARNINGS
RECORD**

**EMPLOYEE'S
STATEMENT**

**PAY CHECK
or pay envelope**

Fast electric carriage return, electric shift to capitals, convenient tabulator control, and many other special features speed up and simplify payroll writing as well as many other jobs. Investigate this and other new Burroughs machines for large and small payrolls. Telephone the local Burroughs office for complete information or a demonstration.

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6111 SECOND BOULEVARD, DETROIT, MICHIGAN

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REMARKABLE REMARKS (*Continued*)

DAVID LAWRENCE
Commentator.

"To use a Chestertonian paradox, the most favorable things that can be said affirmatively about Mr. Roosevelt and the New Deal are negatives."

JOHN C. PAGE
*U. S. Commissioner of
Reclamation.*

"Except for this power development, the Casper-Alcova should never have been built, because it is not a feasible project on the basis of irrigation alone."

JAMES A. FARLEY
Postmaster General.

"Democracy is not opposed either to the rights of capital or the rights of labor. There is no injustice in gold. There can be in its possessor. There is no greed in a machine. There can be in a machinist."

GEORGE W. NORRIS
U. S. Senator from Nebraska.

"If we should blot power out of the [Gilbertsville] project, we should not have any opposition to it, but the most powerful combination on earth in its influence over everything, from the President down to the road overseer, is the Power Trust."

JOSEPH J. KLEIN
Lawyer.

"Taxation, wisely conceived and equitably applied, creates the revenues necessary to maintain our institutions and to distribute their benefits throughout the land. But taxation, as history amply testifies, may become the most serious menace to institutional, social, and economic life."

E. E. COX
*U. S. Representative
from Georgia.*

"The basic fear underlying every depression arises out of unsettled governmental policies; class and sectional strife; fear of revolution, or of entanglements in foreign affairs which may involve the nation in foreign wars; threats to our constitutional democracy; excessive taxation; and an unbalanced national budget, with a mounting national debt."

JOSIAH W. BAILEY
*U. S. Senator from
North Carolina.*

"One of the primary things we have to do in America is to inform the American people that they pay the taxes. I know of nothing more pernicious, nothing that really does us so much damage in this democracy as the generally cultivated view that the Congress levies taxes on the rich and that the government is supported by taxes on the millionaire and the great corporations."

BERNARD M. BARUCH
Presidential adviser.

"It certainly does not make for expansion of private business or stability of prices and capital values to have liquid assets, and in some cases great industries, in a constant process of crash liquidation or facing it, or at least forced and rapid liquidation to pay death duties of various kinds. It creates a constantly caving market and a constant diversion of investment money into old rather than into new enterprises."

MODERN Boiler, Fuel Burning and Related Equipment



For unit capacities from 1000 to 1,000,000 lb of steam per hr

BOILERS

C-E TYPES

BENT TUBE—multi-drum, four-drum, three-drum, two-drum
STRAIGHT TUBE—sectional header, box header (cross drum and long drum)
FIRE TUBE—hrt, vertical, internally fired, locomotive type
MARINE—sectional header, bent tube
WASTE HEAT—straight tube, bent tube, fire tube
 (C-E Boilers include all types known by the trade names Heine, Walsh-Weidner, Casey-Hedges, Ladd and Nuway)

SUPERHEATERS

C-E TYPES

various designs suitable for any superheat requirements and applicable to any type or size of water tube boiler; also a girth type for hrt boilers. Known by the trade name Elesco.

STOKERS

C-E TYPES

UNDERFEED—multiple retort, single retort (five designs)
CHAIN GRATE—(three designs)
TRAVELING GRATE—(two designs)
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both direct fired and storage systems and a variety of designs of mills, burners, feeders and related equipment, including those known by the trade names Raymond and Lopulco.

FURNACES

C-E TYPES

both dry bottom and slagging pulverized fuel furnaces as well as extended surface and plain water-cooled wall constructions.

HEAT RECOVERY

C-E TYPES

regenerative, plate and tubular air heaters; continuous loop and flanged joint types of fin tube economizers. Latter known by the trade name Elesco.

COMPLETE UNITS

C-E TYPES

suitable combinations of boiler, fuel burning and related equipment for any fuel and for capacities from 1000 to over 1,000,000 lb. of steam per hr. Also complete units of standard design known by the trade names C-E Steam Generator, Type VU, and Combustion Steam Generator.

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COMBUSTION ENGINEERING

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How to Save Make-up and Boost Turbine Hours

Over half the power generated for industry in America comes from turbines using Gargoyle D.T.E. Oil Light. Socony-Vacuum's experience with over 9,000 turbines helps find operating economies

FOR LENGTH OF SERVICE and turbine hours per gallon of "make-up," no turbine oils measure up to Gargoyle D.T.E. Oil Light. That is why more than half the country's turbines rated 5000 kw. and over use them exclusively. This wealth of turbine operating experience Socony-Vacuum places at the disposal of your men.

Socony-Vacuum has "kept cases" on turbine operation. This experience is made available without cost to turbine men. Pamphlets prepared on this subject will be sent at your request. In addition, see the new movie called "The Inside Story," which reveals exactly what Correct Lubrication does. Just write to the nearest Socony-Vacuum office for these aids.

"72 Years of Experience Calling"

That is what the chief of a great utility wrote to one of his station superintendents. For when the Socony-Vacuum Representative calls on you, he brings to your problems the greatest experience in the oil business. Many operators find this experience helps them to chalk up records for efficiency and economy. Why not make sure to see our man has something you can turn to your advantage?

SOCONY-VACUUM

OIL COMPANY, INCORPORATED

STANDARD OIL OF NEW YORK DIVISION · WHITE STAR DIVISION · LUBRITE DIVISION · MAGNOLIA PETROLEUM COMPANY
CHICAGO DIVISION · WHITE EAGLE DIVISION · WADSWORTH OIL COMPANY · GENERAL PETROLEUM CORPORATION OF CALIFORNIA

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SERVICE Behind the TRUCK



Seaboard Air Line Railway uses this International 1½-ton Model D-30 Truck in Tampa, Fla. Other sizes in the International line range from the Half-Ton unit to powerful Six-Wheelers.

Capitalize on INTERNATIONAL'S After-Sale Service

Long before the automotive era, service to the customer was the keynote that attracted the men who founded International Harvester. Their policy has been faithfully adhered to through the years.

Today International Harvester has 237 company-owned branches located at strategic points in the United States and Canada, fully equipped to give International Truck owners the kind of service they have a right to expect. Factory-trained service men, working to precision standards and using genuine International quality parts, turn out the work in the shortest possible time.

Whether International Trucks roll up mileage on the nation's highways or confine their work to city streets, they are always close to International factory-standard service. Truck dollars go farther with International—the investment is protected throughout the life of the truck by this matchless after-sale service. Visit our nearby branch and see International service "working." Talk to International owners and you will know its value.

INTERNATIONAL HARVESTER COMPANY

(Incorporated)

180 North Michigan Avenue, Chicago, Illinois

INTERNATIONAL TRUCKS

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L&H Electric Ranges

With the new

HI-SPEED CALROD

Cooking is amazingly speedy—there is no waste heat. Calrod insures efficient performance, satisfied customers and a negligible service cost.

A. J. LINDEMANN & HOVERSON CO.
Milwaukee, Wisconsin

*New Smartness
Styling and
Salability
in the 1938*

L&H ELECTRIC RANGES

Stationary Service Demands Nothing Exide Less Dependable



CHLORIDE BATTERIES

THE battery that is chosen for electric power control, telephone, railway, signal, or other vital stationary service, *must* be dependable over a long period of time.

Because no other battery has ever been developed whose life and performance records could equal that of the Exide Chloride Battery in stationary service, utility engineers as well as those of numerous industrial plants, all over the world, put absolute confidence in it.

For whatever purpose you need a storage battery, some one of the many types of Exides available will completely fulfill your requirements.

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

The World's Largest Manufacturers of Storage Batteries for Every Purpose
Exide Batteries of Canada, Limited, Toronto



WIRED WITH CRESCENT ENDURITE INSULATED WIRE AND CABLE

**40 ACRES
of
APARTMENT
HOUSES**

**JULIA
LATHROP
HOUSING
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Chicago, Ill.

**Elec. Contr.
Wadford Elec. Co.
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**CONTROL CABLE
DROP CABLE
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MAGNET WIRE
PARKWAY CABLE
RUBBER POWER CABLE
SERVICE ENTRANCE
CABLE
SIGNAL CABLE
VARNISHED CAMBRIC
CABLE
WEATHERPROOF WIRE**

Represented here is one of the largest Government low cost housing projects, completed in recent years, using millions of feet of CRESCENT ENDURITE Rubber Insulated Building Wire and Cable conforming to Federal Specifications JC-106.

It is on such low cost, highly competitive jobs that the uniformity, excellence and easy fishing quality of CRESCENT Wire fit perfectly into the picture, providing low cost installation. Using CRESCENT puts you in a position to effect definite savings no matter what size the job, even under the most difficult installation conditions.

All types of Building Wire and all kinds of Special Cables to meet A.S.T.M., A.R.A., I.P.C.E.A., N.E.M.A. and all Railroad, Government and Utility Companies' Specifications.

CRESCENT
INSULATED WIRE & CABLE CO. INC.
TRENTON, NEW JERSEY

RILEY PULVERIZERS

in Central Stations

Plant after plant in the Public Utility industry has swung to Riley Pulverizers . . . definitely establishing Riley as one of the leaders

A few Public Utilities using Riley Pulverizers . . .

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Edison Electric Illuminating Co., Boston . . . Repeat Order

Hartford Electric Light Co., Conn. . . . Repeat Order

Potomac Electric Power Co., Washington, D. C.

Oklahoma Gas & Electric Co. . . . Repeat Order

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City of Springfield, Ill.

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WORCESTER, MASS.

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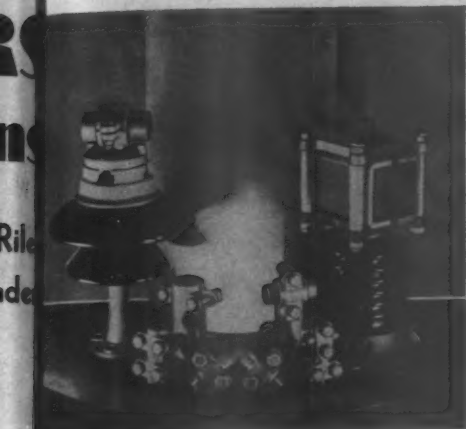
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COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES
PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS

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R&IE conductor SUPPORTS and FITTINGS

Sometimes erroneously thought of as merely an incidental part of a substation network, conductor supports and fittings actually form an extremely important part of a system. A failure at any one support or joint is sometimes as costly to the system as the breakdown of a machine. R&IE carefully designed and properly made conductor equipment is the choice of many Utilities where continuity of service is paramount. Tested designs, excellent quality materials, and care in manufacture, form the foundation for the production of R&IE conductor supports and fittings.



**RAILWAY & INDUSTRIAL
ENGINEERING CO.**
GREENSBURG, PA.

Sales offices in principal cities

GOOD INSULATORS



Insulators are only as good as the experience and workmanship put into their production.

Our product is produced by men of the greatest experience to be found in the industry.

VICTOR made insulators are GOOD INSULATORS.

Catalog on request

Victor Insulators, Inc.
Victor, N. Y.



**Full Size Professional
ARC
WELDER**

Here's thrilling news! A full size, heavy duty Aladdin Electric ARC WELDER—only \$39.25 with De Luxe Accessories! Not a toy, but a big, 100-pound man-sized machine that welds all weldable metals and alloys with amazing efficiency, everything from cast iron parts to light sheet metal. A sturdy, welded-steel construction machine, yet easily portable on casters.

**Only
\$39.25**
With Deluxe
ACCESSORIES

WORKS FROM 110-VOLT SOCKET

Simply plug into any 110 or 220 volt A.C. electric socket. Economical—costs only a few pennies an hour to use. Often pays for itself on first or second job. Can be carried right to outside jobs in auto truck or side car. Has complete heat controls. Anyone can use easily. Instructions for doing all kinds of welding jobs included.

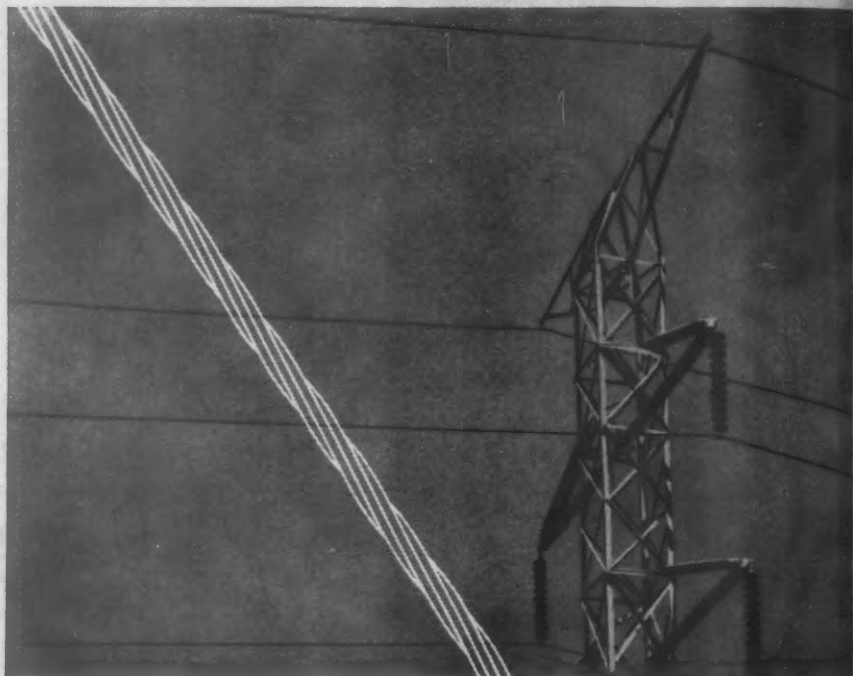
Amazing Details FREE!

Send no money! Write today for fascinating facts about this new Aladdin ARC WELDER with De Luxe Accessories. Aladdin is the ideal welder for Public Utility service, maintenance and construction work—a highly efficient machine GUARANTEED TO MEET ALL CLAIMS, at a fraction of the price asked for others—at a saving that may amount to several hundred dollars! Send today for full details. You are not obligated.

COMMONWEALTH MFG. CORP.

4200 Davis Lane Dept. U-76 Cincinnati, Ohio

It's *know how* that counts



in making **Strand**

And there's plenty of "know how" back of Bethlehem Strand—the accumulated experience of half a century of strand manufacture by Williamsport Wire Rope Company, recently acquired by Bethlehem.

Take ground wire as an example. High-strength steel, possibly, may be specified. And 7-wire strand, double galvanized. Even with standard specifications covering these three points, Bethlehem (formerly Williamsport) Ground-Wire Strand has won high favor among utilities and transmission-line construction men.

"Know how" has enabled Bethlehem to improve wire joints, for instance. Often such joints are so brittle as to snap as the strand is being strung. Bethlehem uses a time-controlled, low-tempera-

ture type of welding that produces an amply strong joint and at the same time hardly affects the cold-drawn wire on either side. Gone are the sharp changes in steel composition caused by sudden flashing and cooling—and gone are the weakness and brittleness so often found in wire joints.

A small point, perhaps. Yet wire joints are the most vulnerable points when stringing ground wire. With Bethlehem Strand, these joints are no longer a problem.

Whether it's ground wire, messenger strand, or Form-set (preformed) guy wire; whether it's galvanized or bethanized (electrically coated), you'll find this "know how" invariably present in Bethlehem Strand.

BETHLEHEM STEEL COMPANY



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A-E-CO

TAYLOR STOKER UNITS
TAYLOR STOKERS
FURNACES (Water-Cooled)
ASH HOPPERS

UNCOVER THE **FACTS!**

Taylor Stokers Eliminate a Costly Step

Coal for a Taylor Stoker can go direct from railroad car to stoker. Preparation is never needed, because Taylor Stokers burn coal of any size as it comes from the mines. Thus this short cut in coal handling assures a big cut in your coal cost. This is but *one* of many reasons Taylor wins selection—when buyers of stokers insist on all the facts.



Division: AMERICAN ENGINEERING COMPANY
PHILADELPHIA, PENNSYLVANIA

Other Products: A-E-CO LO-HED MONORAIL ELECTRIC HOISTS, A-E-CO HELE-SHAW PUMPS, MOTORS AND TRANSMISSIONS, A-E-CO MARINE AND YACHT AUXILIARIES

*Tough going for the men
is easy going for a Cletrac*



Stringing cable is no job for a fair-weather outfit. The going's tough, as any lineman will tell you . . . uphill and down, through mud and swamp, across the country as nature made it without benefit of trail or road.

It's a job for a Cletrac . . . the crawler tractor that's built to smile at hard going . . . with the traction, the balanced design, the power, and stamina to get in and out of the tough spots.

With controlled differential steering, Cletracs are more easily controlled, surer footed in tight places, safer on the hills.

Investigate. There are fifteen models, from 22 to 94 horsepower, either gasoline, tractor fuel, or Diesel powered, and with a complete line of working equipment.

THE CLEVELAND TRACTOR COMPANY • CLEVELAND, OH

Cletrac Crawler Tractors

The only tractors with controlled differential steering that keeps both tracks pulling at all times . . . on the turn as well as on the straightaway

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Makes Savings THAT WILL Surprise You!

Comparative cost figures, covering the operation of power hammers in development and maintenance work of public utilities, often reveal Barco Portable Gasoline Hammer savings that are really startling.

No other type of power hammer is so low in first cost and operating cost. The many ways in which it saves time and money on utility operations would make a list too long to print here. Some of them will only be discovered in emergencies by a regular Barco user. Year 'round efficiency.

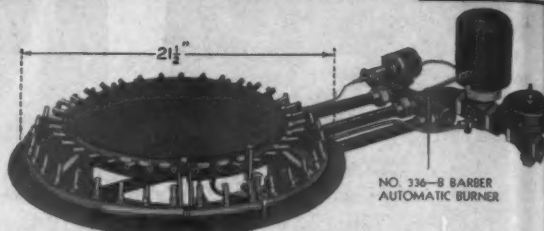
BARCO MANUFACTURING CO.
1803 Winnemac Ave.,
CHICAGO, ILL.

BARCO *portable* GASOLINE HAMMER

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BARBER BURNERS Stand for Service to the Gas Industry

CONVERSION burners come and go. For 20 years Barber Burners have led the field on the one test for any burner — *performance!* Dependability, heating efficiency, freedom from service calls are indelibly written into that Barber record! Barber extends active cooperation to Gas Companies, because we are vitally interested in user satisfaction both in home heating and gas appliance performance. Stock and display Barber Burners! Consumer sales literature gladly furnished on request.



- "Tailor-made" to suit and fit the grate dimensions of round or oblong furnaces or boilers.
- Insures a "scrubbing" flame action on side walls of furnace, at the proper level, with 1900° Fahrenheit flame temperature. No fire brick or refractory elements needed.
- Furnished with Baltimore Safety Pilot Control—positive and accurate. Listed in the A. G. A. Directory of Approved Appliances.

We supply Sales Literature, Specification Data Sheets and Practical Sales Assistance. Write for Latest Illustrated Catalog No. 37 and Revised Price List.

THE BARBER GAS BURNER COMPANY
3704 SUPERIOR AVENUE, CLEVELAND, OHIO

BARBER JET GAS BURNERS

For Warm Air Furnaces, Steam and Hot Water Boilers and Other Appliances

WALL

BRAZED STEEL DOUBLE-JACKETED COMPOUND KETTLE



View of Bottom, showing Double Jacket all over



A double-jacketed compound kettle for melting joint filling compounds. Exceptionally rugged, made of heavy steel, with bottom and spouts brazed. Outside jacket completely covers sides, top and spout. Complete with double ring on ball for lowering and raising in a manhole or on a pole.

P. WALL MFG. SUPPLY CO.
PITTSBURGH, PA.

Any Size

GMC TRUCKS and TRAILERS

For Any Purpose

1/2 TONS TO 15 TONS

Only GMC offers such an infinite variety of models, wheelbases, tire options, axle ratios in both trucks and trailers, at the same time giving users a choice between conventional or cab-over-engine types. See GMC for the answer to ANY haulage problem.

Our own Y. M. A. C. Time Payment Plan assures you of lowest available rates



5 MAN CAB

Developed for utility line work by GMC engineers. Built entirely in GMC shops.

GENERAL MOTORS TRUCKS & TRAILERS

GENERAL MOTORS TRUCK & COACH • DIVISION OF YELLOW TRUCK & COACH
MANUFACTURING COMPANY • PONTIAC, MICHIGAN

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YOUR WHOLE ORGANIZATION ON YOUR DESK



Dictograph's intercommunicating System puts the whole organization on your desk. With the flip of a key you have immediate access to all information without dialing or waiting for the operator. You may converse with any other member of the company or several at once in a low tone of voice, with both hands free to take notes, without even leaning over to speak or hear.

With Dictograph, no inter-office calls go through the switchboard, no one must wait while the line is busy, there are no annoying "call me backs," no "listening in" by the operators. And the switchboard is left free to handle important outside calls.

In short, Dictograph enables you to obtain instant, up-to-the-minute reports, to issue instructions to several people in different parts of the building at once, to make instant decisions. It eliminates office visiting, keeps every man at his desk.

Best of all, perhaps, Dictograph smooths your day, oils the routine of business, leaves more time for planning and thinking. These systems can be adapted to fit any particular intercommunication need. Learn what they have done for other companies, what they can do for yours. Write today and ask for further information.

Dictograph's Public Utility System is the key to improved public relations. A special Customer Contact Clerk, chosen for his ability to handle people, takes care of all customers who call in person to inquire about service, make complaints, ask for adjustments, etc. The Dictograph on the clerk's desk puts him in immediate contact with any wanted reference source, cuts the time spent on individual transactions and leaves the customer with a favorable impression. Let us explain in detail the many advantages of this system.

DICTOGRAPH PRODUCTS CO., INC.

580 Fifth Avenue

NEW YORK, N. Y.

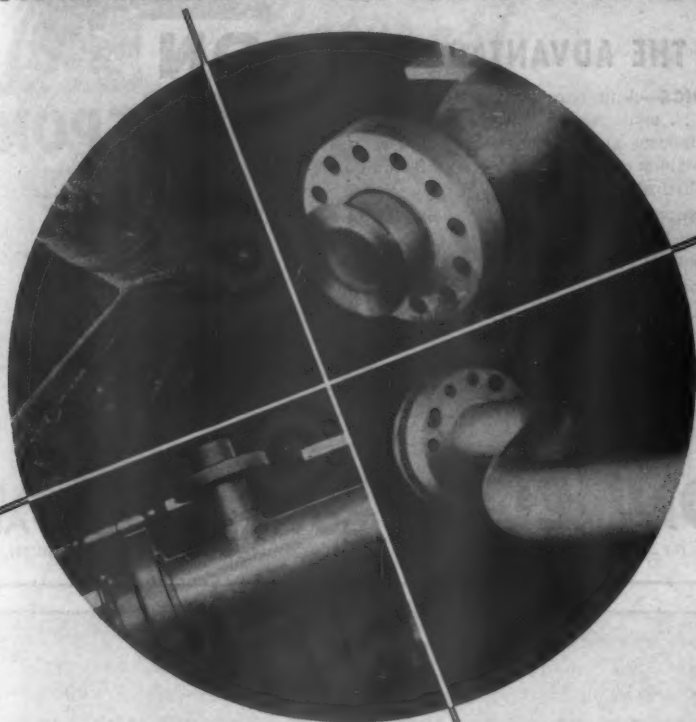
Offices in All Principal Cities Throughout the World

MANUFACTURERS OF PRECISION EQUIPMENT SINCE 1900

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GRINNELL PREFABRICATION



cuts field welds to the minimum

The few field welds required to install a Grinnell Prefabricated Piping section are all of the plain circumferential butt weld type—any qualified pipe welder can make one or a hundred uniform welds.

Smooth in contour and inside surface, thoroughly pretested and qualified for insurance, Grinnell Prefabricated Piping gives engineers the advantages of basic and interpretive engineering, economy in cost and labor, easy, rapid erection and delivery on schedule.

Find out how much more readily Grinnell prefabrication can provide complicated sections; multiple outlets; unusual bends. And rely on the vast resources of Grinnell to provide the advanced plant facilities, 1937 thinking and years of experience that will make the job go right. Grinnell Company, Inc., Executive Offices, Providence, R. I. Branch offices in principal cities.

GRINNELL PREFABRICATION

Includes These Four
Major Services:

WELDING BENDING
LAP JOINT FLANGING
NOZZLE EXTRUDING



GRINNELL

WHENEVER PIPING IS INVOLVED

CHECK THE ADVANTAGES OF IRON

CONVENIENCE—A prepared mixture . . . ready to use . . . made under controlled manufacture that insures absolute uniformity and correct proportions of Connelly selected filler and active, hydrated, alkalized iron oxide.

EFFICIENCY—An ideal purification material that combines sustained activity with high capacity for sulphur . . . and recovers rapidly after fouling.

ECONOMY—Insures longer life, greater porosity of bed because it is less compressible, less pressure loss and fewer box renewals.

CONNELLY IRON SPONGE is produced in grades to suit your requirements. Write for Bulletin No. 101-B-1.



SPONGE

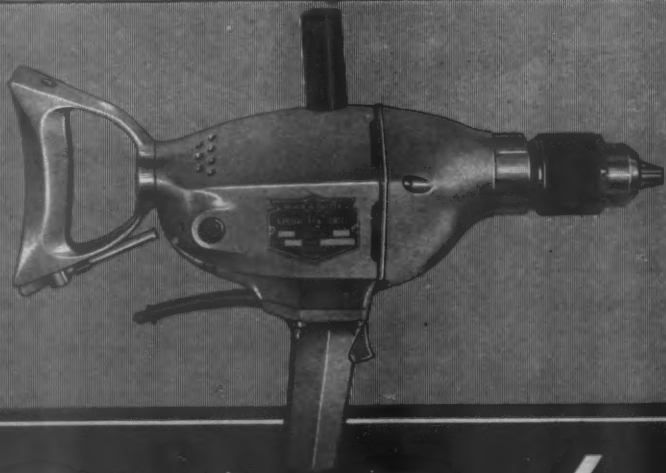
CONNELLY Products:
Iron Sponge and Unmixed Oxide—Regulators for District, Station, Service and Appliance—Back Pressure Valves—Caloroptic BTU Indicators—H₂S Testers and U-Gauges—Smyly Mercury Loaders and Distribution Supplies

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New England Representative: T. H. Piser, Wellesley Hills, Mass.

ELIZABETH, N. J.



Black & Decker

World's Largest Manufacturer of
PORTABLE ELECTRIC TOOLS
TOWSON, MARYLAND

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The PITTCO STORE FRONT CARAVAN *Returns!*



Another chance to tie up with this potent builder of new lighting customers! Another opportunity to sell more current by showing the merchants and property-owners in your territory the advantages of modern, business-building store front lighting and design.

The Pittco Store Front Caravan, with twelve scale models of modern, properly illuminated store fronts, is going to cover the entire country again. If it visited your territory on its first trip, you'll know how helpful it was to you in educating your prospects to a better appreciation of adequate store front illumination.

This time, the Caravan will cover your territory more broadly than before. Having presented its store front exhibit in all the metropolitan areas on its previous tour, it will this time present showings of its scale models in the more important *smaller* communities throughout your territory . . . giving every merchant and every property owner a chance to see it.

Watch for the return of the Pittco Caravan . . . and tie up with it in your sales efforts. Your nearest Pittsburgh Plate Glass Co. branch can give you specific information as to when it will revisit you.

Paint * **PITTSBURGH** * *Glass*
PLATE GLASS COMPANY

DAVEY LINE CLEARING SERVICE

New Spring Tree Growth

- An Immediate Problem
- A Threat to Service
- A Task for Experts
- A Job for Davey Men

Always use dependable Davey Service

DAVEY TREE EXPERT CO.

KENT, OHIO

DAVEY TREE SERVICE



They lasted
25% LONGER
 WHEN CHOSEN *by* TEST

Street Lighting Globes, for years, were considered to have a life which was terminated by accidental dropping or by a small boy's stone.

Tests by Electrical Testing Laboratories disclosed the fact that strains in glassware constitute an important mortality factor. Globes selected by careful test were found to have a 25% longer life than "run of mine" globes, under identical conditions of service.

For more than forty years, E. T. L. has been conducting research and tests on nearly everything that a modern utility buys, sells, services or uses. Our clients tell us that this makes their operations more economical.

A pamphlet entitled "Fact is Sounder Than Fiction" will be sent on request.



**ELECTRICAL
 TESTING
 LABORATORIES**

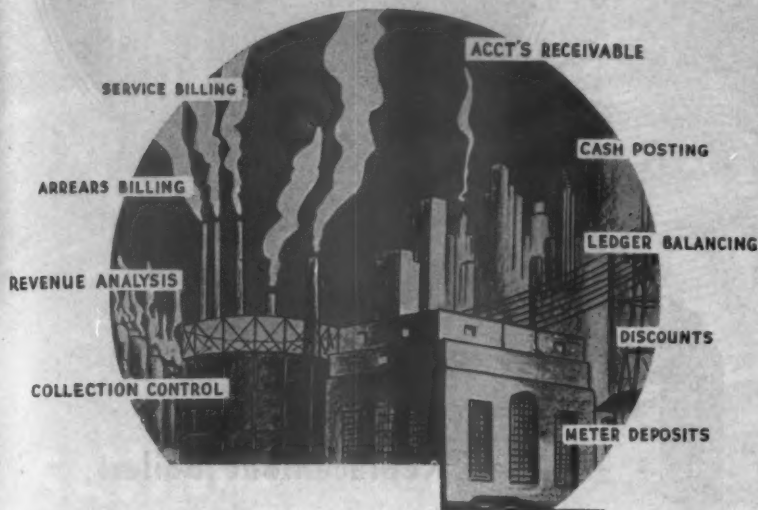
East End Avenue and 80th Street
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**KLEIN
 CLIMBERS**

Forged from special alloy steels, individually tempered and tested, Klein Climbers are recognized by line-men and safety engineers alike as possessing the maximum factors of strength, safety and comfort.

Mathias KLEIN & Sons
 Established 1857 Chicago, Ill. USA



For complete and more informative records

¶ In re-equipping your accounting department, don't consider only your current Service Billing needs. This type of billing comprises only 3% of present day customer accounting costs.

¶ Investigate the punched card method of accounting which, in addition to Service Billing, will facilitate the handling of Cash Posting, Ledger Balancing, Discounts, and Arrears and Merchandise Billing. This method will also enable you to control Accounts Receivable, Meter Deposits and other important functions.

¶ This modern electric Accounting method offers complete and more informative records to the customer, the district offices, the customer service department and the management. Write for complete information today.

INTERNATIONAL BUSINESS MACHINES CORPORATION

WORLD HEADQUARTERS BUILDING
300 MADISON AVENUE, NEW YORK, N. Y.

BRANCH OFFICES IN
PRINCIPAL CITIES OF THE WORLD



Low Cost Replacement Boiler

FRANKLY now, why spend money tearing out and then repairing the tear-out on a building, in order to replace a boiler? Why do it, when the old boiler can be left where it is, or moved to one side, and a Burnham Cast Iron Twin Sectional put in its place. No tear-outs. No repairs.

None of the Burnham sections are so big they won't slip through any average size door. Still, it is a big boiler having a 50-inch grate. If you prefer Welded Steel Boilers, Burnham also makes them.

Both are built to a specification. Both are backed by a reputation.

Burnham Boiler Corporation

Irvington, New York

Zanesville, Ohio

*Representatives in All Principal Cities of the
United States and Canada*

Sections are reversible. There are no rights and lefts. Every right is also a left. Every left is also a right.

ECONOMIZE
AS YOU MODERNIZE YOUR TRUCK EQUIPMENT



SAVINGS
begin with
CHEVROLET'S
LOW
FIRST COST

CHEVROLET TRUCKS

give the power and performance
you need . . . and with low operating
and maintenance costs

MANY savings in your haulage or delivery costs may be made by modernizing now with 1938 Chevrolet trucks. Save by taking advantage of Chevrolet's low truck prices. Save on gas and oil, on daily maintenance expense—and on month-after-month upkeep costs. Chevrolet trucks lead in economy—in durability and dependability. But first, get the facts that will convince you that, regardless of the job to be done, ruggedly-built new 1938 Chevrolet trucks are the trucks for your job. Call your Chevrolet dealer today.

*General Motors Installment Plan—Convenient,
Economical Monthly Payments. A General
Motors Value.*

CHEVROLET MOTOR DIVISION
General Motors Sales Corporation
DETROIT, MICHIGAN

CHEVROLET "THE THRIFT-CARRIERS FOR THE NATION"

Six Chassis Models—Light Delivery, $\frac{1}{2}$, $\frac{3}{4}$, 1, 1 $\frac{1}{2}$ Tons (131" and 157-inch wheelbases) • Five Wheelbase Lengths—112-inch to 157-inch • Famous Valve-in-Head Truck Engine • Perfected Hydraulic Truck Brakes • Full-Floating Rear Axle • Extra-Strength Frame • Four-Speed Transmission • Modern Styling • On 1 $\frac{1}{2}$ Ton Models

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COLLIER'S SERVICE?



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EXPERIENCE...

A man can't build in one, ten or twenty years the business Barron Collier has built in nearly a half century . . . business for you, business for the Nation's merchants, business for his own organization . . . That **EXPERIENCE** is our greatest asset . . . and, so far as making space pay, yours.

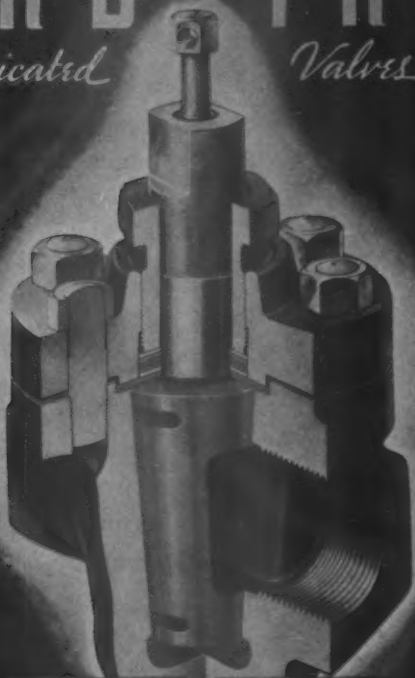
BARRON G. COLLIER, Inc.

745 FIFTH AVENUE, NEW YORK

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Lubricated

Valves



"Sealdport" Lubrication
PATENTED

**The Only Valves That Meet
Every Major Valve Need**

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A Subsidiary of Pittsburgh Equitable Meter Co.

Main Offices: Pittsburgh, Pa. Branch Offices: New York City, Buffalo, Philadelphia, Columbia, Memphis, Des Moines, Chicago, Kansas City, Tulsa, Houston, Los Angeles, Oakland. Canadian Representatives and Licensees: Peacock Brothers, Ltd., University Tower Building, Montreal, Quebec.

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"Take your car, for instance. In modern machine tools and today's precision methods that make it last longer, run more quietly, more smoothly . . ."

"Yes—but a water meter's not an auto engine."

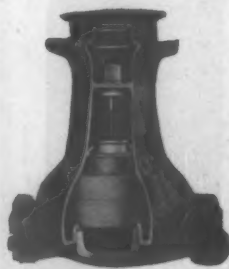
"No—it runs more slowly . . . but modern machine tools and precision methods in production and assembly mean just as much to its life, its sensitivity and accuracy."

"But are there any water meters being made that way today?"

"Yes . . . Tridents and Lamberts . . . they say the Neptune people have practically re-equipped their shops . . ."

**NEPTUNE
METER COMPANY
THOMSON METER CORP.**

80 West 50th St. (Rockefeller Center)
New York City
Neptune Meters, Ltd.,
345 Bloor Street
Toronto, Ont., Canada



MODERN PARTS IN A
39-YEAR-OLD TRIDENT

PIONEERS IN METER PROGRESS—YESTERDAY—TODAY—TOMORROW

TRIDENT

and LAMBERT WATER METER
WELL OVER 6 MILLION—WORLD WIDE

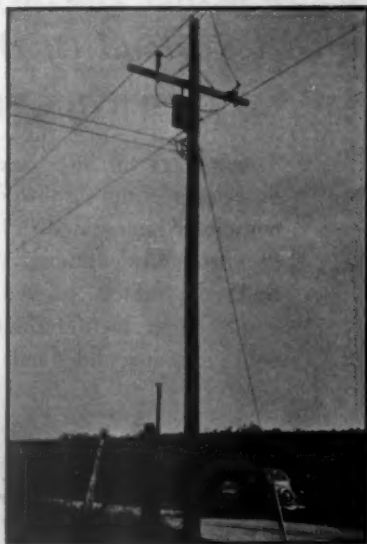


...another 6 miles
of Line today !!!

THAT BOY SLIM has been making eyes at the land-
lady's daughter. He's on the pan . . . but such horse-
play can only temporarily make the gang forget their
real cause for elation. They're stepping on the tail of
the outfit setting poles just a few miles ahead. Soon
they'll be crowing about that again.

Six miles of line today; another six, maybe more,
tomorrow. The conductors are A. C. S. R.

Lines built with Aluminum Cable Steel Reinforced go
up rapidly, and meet the highest construction standards.
Their combination of light weight and high strength per-
mits the use of long spans, requires no sacrifice of safety.
Ample conductivity allows for future growth of rural
load. ALUMINUM COMPANY OF AMERICA, 2134 Gulf Build-
ing, Pittsburgh, Pennsylvania.



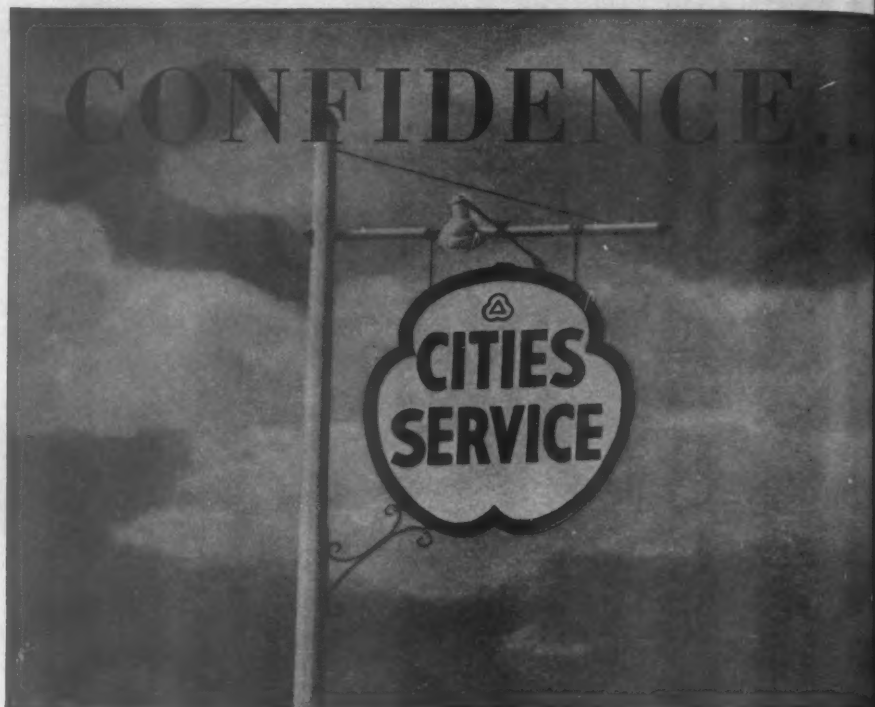
A · C · S · R

FOR RURAL LINE



FOR POWER TRANSMISSION

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***Whether You Buy A Tankful Of Gasolene Or
A Carload Of Oil—You Can Be Sure That
CITIES SERVICE PRODUCTS Are Unsurpassed!***

THE QUALITY of Cities Service gasolenes, oils and greases is guarded every step of the way from the oil well to you. For Cities Service is a completely integrated unit in the oil industry, engaged in all phases of petroleum operation . . . production, transportation and refining. The finished products, backed by 74 years of refining experience, reach you through 15,000 reliable outlets. The Cities Service emblem is your guarantee of dependable products and efficient, courteous service.

CITIES SERVICE



Serves A Nation



Welding Goggles



Chipping Goggles



SAFETY-SERVICE"

A Quality Line of

Accident-Prevention Equipment for Every Industrial Need!

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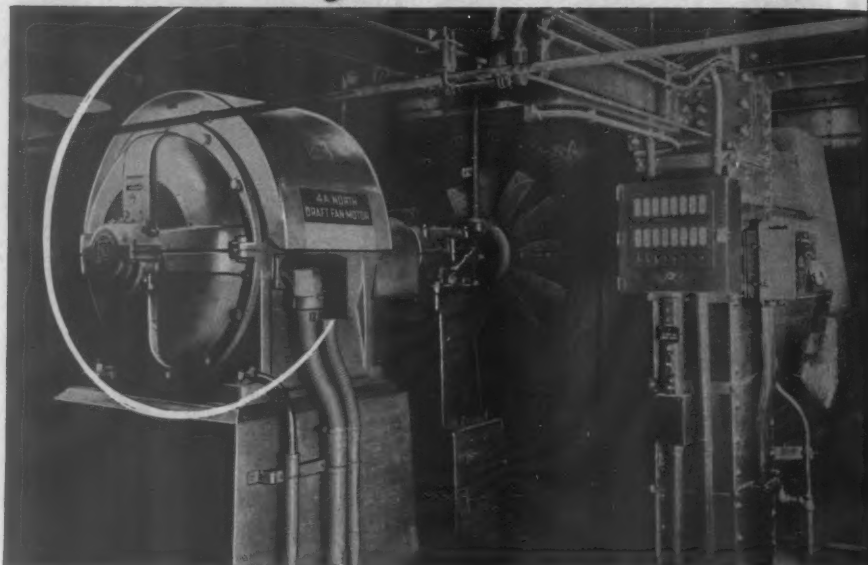
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Utilities Almanack



A P R I L



14	Th	¶ Iowa Independent Telephone Association concludes meeting, Des Moines, Iowa, 1938.	
15	F	¶ Midwest Power Conference concludes session, Chicago, Ill., 1938.	
16	Sa	¶ Maryland Utilities Association will hold annual meeting, Baltimore, Md., April 29, 1938.	
17	S	¶ Chamber of Commerce of the United States will hold convention, Washington, D. C., May 2-5, 1938.	
18	M	¶ American Chemical Society, Division of Gas & Fuel Chemistry, opens session, Dallas, Tex., 1938.	
19	Tu	¶ Nebraska Telephone Association starts convention, Omaha, Neb., 1938.	
20	W	¶ Missouri Association of Public Utilities begins meeting, St. Louis, Mo., 1938. ¶ American Society of Civil Engineers opens spring meeting, Jacksonville, Fla., 1938.	
21	Th	¶ Southeast and Southwest groups, American Transit Association, open joint bus conference, Memphis, Tenn., 1938.	
22	F	¶ Pennsylvania Gas Association will convene for session, Sky Top, Pa., May 3-5, 1938.	
23	Sa	¶ American Gas Association Natural Gas Department will hold meeting, New Orleans, La., May 9-12, 1938.	
24	S	¶ American Water Works Association starts annual convention, New Orleans, La., 1938.	
25	M	¶ National Fire Protection Association will convene for session, Atlantic City, N. J., May 9-13, 1938.	
26	Tu	¶ Indiana Gas Association will hold meeting, Gary, Ind., May 16, 17, 1938.	
27	W	¶ Kansas Telephone Association starts annual convention, Topeka, Kan., 1938.	



From an etching by James E. Allen

Courtesy, Kennedy & Co., New York

The Builders

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Public Utilities

FORTNIGHTLY

VOL. XXI; No. 8



APRIL 14, 1938

New England's Stand On Flood Control Compacts

Conflict of Federal and states' rights

The section involved wants to know among other things, declares the author, why the primary purpose of flood control has been turned to a fight for power development.

By CHARLES MORRIS MILLS

FLOOD control under state government versus power monopoly under Federal government is the fundamental issue between the New England states and Washington. The compacts framed by the four New England states — Vermont, Connecticut, New Hampshire, and Massachusetts — covering the Connecticut river valley, and in the latter two states in the Merrimack river valley, are essentially for flood protection only.

The opposition, formed by a con-

gressional bloc of antipublic utility advocates, the Federal Power Commission, and the administration, is ultimately interested in the development of Federal water power regardless of the size of the streams involved, navigability, or the economic feasibility of the generation and distribution of such resources. The outcome of the conflict will largely determine the future Federal power policy of the United States. The Federal Power Commission in its annual report pointed out that the situ-

PUBLIC UTILITIES FORTNIGHTLY

ation was not of "local or minor importance but of national significance." Thus, the New England Flood Control Compacts are being used as a testing ground for the further and permanent extension of the Federal government into the public utility industry in the various states.

IN a short six months, the scene has shifted from the gentle brooks and ponds of northern New England to the marble halls of Congress and the White House. Originally there was a simple effort to prevent the terrible destruction of great annual floods. Four states drew up compacts under the Omnibus Flood Control Act of 1936 for mutual protection. Four legislatures approved bond issues covering the costs of lands and maintenance. Four governors, two Republican and two Democratic, signed the compacts, backed by the great majority of Senators and Representatives from the states involved. The Army Engineers who had sat in the conferences of the joint interstate flood commission, approved. The Secretary of War congratulated the states in a radio broadcast. Bills covering the compacts were approved by the Senate Committee on Commerce and the House Flood Control Committee. There was every reason to expect early ratification of the compacts last summer.

THE first opposition arose from a small group of antipublic utility Representatives and one Senator who had originally voted to support the compacts. They saw in the compacts a vast plot by the so-called power interests. The Federal Power Commission felt that the compacts blocked the further ascendancy of its authority.

That agency attempted to read into the existing law interpretations which apparently have not yet seen a statute book. The accuracy of Army Engineers' judgment was dismissed in favor of mystic dreams of those who vision a power dam behind every brook. Finally, in mid-January, at a conference of the New England governors, the President of the United States announced a new policy. Washington (*i. e.*, the taxpayers) was to pay for all costs of flood control and ultimately for future water-power development, covering lands, construction, and maintenance. For this, the states were to relinquish all titles and rights to the various properties. The governors have stood by the compacts so far.¹ There the matter stands at present. The issues are national in importance:

Shall the Federal government control all the water resources of the United States including nonnavigable streams?

Shall states which refuse to sign interstate agreements over water development be forced by Federal power to give up title to lands?

Shall interstate agreements be discarded entirely for Federal control?

Shall the Federal government impose the pattern of the TVA on the small river basins of the United States in order to build wasteful and impractical dams and reservoirs to generate and distribute electric power and duplicate existing private lines?

Shall the Connecticut and Merrimack valleys continue to suffer great flood losses for the sake of Federal power monopoly?

¹ The U. S. Senate on March 25th ratified the compact, but a motion to reconsider was pending as this went to press.—Ed.

NEW ENGLAND'S STAND ON FLOOD CONTROL COMPACTS

As a basis for a consideration of the questions involved, an understanding of the problem of flood control in the various states is important. The headwaters of the Connecticut and Merrimack rivers are in small brooks and ponds that lie in narrow valleys and gorges, chiefly in Vermont and New Hampshire. These form the sources of rivers which at flood periods spread destruction in both the farmlands and populous cities of Massachusetts and Connecticut. The first two states, in any kind of flood protection, have much to lose through the displacement of roads, railroads, small farms, villages, and towns. Permanent damage results to both individuals and properties, the loss of revenue and taxes, and in the decline of value of contingent areas.

There are some benefits, it is true, in the possible sale of impounded water from flood reservoirs during the dry season to industries farther down stream within their own states.

This revenue, declare the states, belongs solely to them, and not to other states or to the Federal government. *It involves the sale of impounded water; does not place the states in power production as no power plants are built at the source of supply.* Even this income, however, does not compensate for the loss and damage involved in flood protection, the benefits of which accrue largely to other states. Vermont

and New Hampshire, therefore, feel that inherent rights in dam and reservoir sites should be preserved, and that they should be allowed to determine the nature of the development of reserve water bodies, subject to the usual review by Federal authorities.

THE type of people who own these lands must also be borne in mind. Their forefathers fought the Indians, the French, and the British to win American freedom. They are not willing to see their birthrights sold down the river to Washington. They resent invasion by outsiders. They have been trained for generations in self-reliance and independence. They have little use for Federal subsidies. Witness the fact that Vermont flatly turned down the idea of a great Federal highway which was proposed by Washington to be built across her green hills and mountains. Witness the fact that New England as a whole has paid 50 per cent of her relief bill as contrasted with 16 per cent for the far West and 6 per cent for the South. Even in the days of a Federal Santa Claus, New England has chosen to pay more than her share of these costs. Yet the four states involved cover only one-eighth of one per cent of the area of Continental United States and only 5½ per cent of the total population. In 1936, however, they paid \$124,649,803 in Federal income, capital stock, estate, and gift



"THE first opposition arose from a small group of antipublic utility Representatives and one Senator who had originally voted to support the compacts. They saw in the compacts a vast plot by the so-called power interests. The Federal Power Commission felt that the compacts blocked the further ascendancy of its authority."

taxes or 6.6 per cent of the total taxes of the nation. Two of the states are relatively poor, as 67 per cent of the total population in Vermont are in rural districts and 41 per cent in New Hampshire.

In March, 1936, the disastrous floods in the Connecticut and Merrimack valleys caused direct and indirect damages of over \$100,000,000. In the Connecticut valley alone, the direct loss was \$35,000,000 with \$19,000,000 (55 per cent) in Massachusetts and \$11,500,000 (33 per cent) in Connecticut. Hartford, Holyoke, and Springfield areas totaled losses of \$14,700,000.

ARMY Engineers had been at work for years prior to the great flood of 1936 making surveys for flood control. In a report dated February, 1936, now known as House Document 412, levees and channels were dropped as impractical, and reservoirs and dams were chosen as the best defense against floods. The cost of 30 reservoirs in the Connecticut valley was deemed too high for economical flood storage, and 20 were selected for a long-time program. Of these 11 were chosen as a first step, 8 of which were included in the compact. Dam sites were restricted because of narrow valleys and gorges. The report pointed out that there was economic justification for flood control projects by reason of the saving from annual flood loss; that *flood control benefits predominated, with only incidental benefits to hydroelectric power generation, recreation, and sanitary conditions.* In the sites covered in the Connecticut compact, *locations were all on nonnavigable streams, and only one was economically feasible for power development representing 1½ per cent*

of the total undeveloped power resources of the Connecticut river valley.

Later when pressed by the administration as to the power potentialities of the reservoirs, the Army Engineers announced that "... it would be physically possible to devote 6 of the 11 reservoirs to power development by abandoning their proposed use for flood control," but the practical worth of such projects could only be determined by market conditions.

THE compacts were based on the 1936 Act permitting states to enter interstate agreements. Oswald Ryan, general counsel for the Federal Power Commission, has outlined at length the objections of the commission to the compacts.^a First, he claims that the compacts do not follow the act because money was not paid over to the Secretary of War for the purchase of lands, and that if the states had complied with § 4 of the act, the advance consent of the Congress would have been met, and no further ratification would have been necessary.

Section 4, however, does not say that money for the purchase of lands and maintenance must be turned over to the Secretary of War, but rather that the states, after agreement among themselves and with the approval of the Secretary of War, must appropriate funds for purchase of lands and maintenance. There is no indication that cash must be given over to the Secretary of War. The states in the compacts did duly provide such money through the vote of the respective legislatures. An interstate commission was set up to which lands bought by the

^a See "The New England Flood and Power Compact Stymie," PUBLIC UTILITIES FORTNIGHTLY, January 20, 1938, p. 67.

The Power Issue

“OPPONENTS of the compacts from the start have tried to divert the issues from flood control to power development. Again, the streams involved are small, non-navigable waters, not mighty Columbias or Tennessees. The problems do not concern national defense or navigation. The question of power development is distinctly limited with only one small project originally marked for economical power development.”



respective states were leased for 999 years. The lands were then to be made available to the Federal government.

THE states took an entirely different point of view from that of Mr. Ryan over this issue. Section 3 reads that no money shall be expended on construction by the Federal government until the local agencies have “given assurances to the Secretary of War that they will (a) *provide without cost to the United States all lands, easements, and rights of way necessary for the construction of the projects...*” This section does not say that the Secretary is to buy the lands—they are to be “provided” by the states—in other words to be made available to the United States. The states interpreted the act as giving them a choice of (1) providing the land themselves, subject to ratification by Congress, or (2) paying over cash to the Secretary of War for the purchase of land with no ratification necessary. Because of the widespread opposition in New England, where rugged individualists from the start were reluctant to give up lands under any circumstances, it was felt best that the land should be acquired by

state rather than by Federal representatives. Indignation meetings in Vermont against dispossession are ample proof of the situation.

THE position of the Federal Power Commission on this point is weak because §3 also provides that the states are to “maintain and operate the works” when completed. No individual, let alone a state, would want to pay for and maintain and operate the works in the absence of ownership. If the states were to carry out §3(b), they contended that the title to the property must remain in their hands. Suppose, for example, that the title did pass to the Federal government, which decided, after a few years, to go into the power business. This might involve the erection of expensive plants which might be wholly impracticable, and might result in greatly increased operating costs. The states would be required to pay such increased costs whether they wanted to or not. Clearly the intent of the act is that states should “provide” lands but not that they should hand them over to the Federal government. In that light, the compact framers acted in a realistic and practi-

PUBLIC UTILITIES FORTNIGHTLY

cal manner which did not please the Federal Power Commission.

Mr. Ryan believes that local contributions to flood control costs should not be made by states unless direct benefits accrue to the state in which the flood control projects are located. If no benefits accrue, he argues, no contributions are necessary; instead the Federal government should step in and take title by reason of supplying the entire cost. Here Mr. Ryan overlooks the benefits to be derived by the Connecticut compact.

WHILE it is true that the benefits in this case lie largely in Massachusetts and Connecticut (benefits in Vermont and New Hampshire were set at 17½ per cent but were reduced to 5 per cent because of inconvenience and inability to pay) and that flood protection costs should be apportioned accordingly, there are benefits in the states in which most of the reservoirs are to be built. Flood control projects calling only for the impounding of water, as already pointed out, permit benefits within the state in the sale of water in the dry season. The Army Engineers in Document 412 showed that such annual revenue from only 10 reservoirs in the Connecticut valley would amount to \$325,000, and with completion of the whole or extended program, this figure would increase to \$2,319,000 if present and proposed private down-stream projects were extended or completed. The report adds that such an increased market was not present (1936) and that such potential development was not feasible. The main point here is to emphasize the fact that Vermont and New Hampshire are to be benefited by any kind of flood

protection and under the compacts were to stand part of the cost.

Mr. Ryan further argues that where the benefits lie outside of the states in which the projects are located, the Secretary of War is empowered to acquire the lands, etc., and that title would thus accrue to the Federal government. Mr. Ryan did not italicize the important words of this section "*with the consent of the state.*"

THE War Department would certainly not attempt to take lands without the consent of the state, yet that is implied in the argument. Exactly that kind of bill was introduced in Congress after the compact bills had been presented. Under the terms of the Brown-Casey bill, the Secretary of War would be empowered to acquire lands in recalcitrant states refusing to enter interstate flood control compacts. Two or more states could enter a compact, but if other states in which flood control projects were largely located refused, the Army could acquire the land. Massachusetts and Connecticut, under the bill, could combine to force Vermont and New Hampshire to surrender lands. This proposal, violating the essential doctrine of states' rights, aroused tremendous feeling in New England. Democratic Governor Cross of Connecticut stated that he would have no part in the "rape of sister states."

Under the 1936 Act, asserts Mr. Ryan, there was no provision for the return of titles to the lands by the Secretary of War, although this was provided for in other legislation relating to flood control. He, therefore, argues:

Thus, it would seem under the act the

NEW ENGLAND'S STAND ON FLOOD CONTROL COMPACTS

Secretary purchases the lands, easements, and rights of way for the United States, and when he constructs a project on such lands, the completed project shall be owned by the United States.

THE Secretary of War, according to the compact framers, does not purchase the lands. They are "provided for" by the states. The construction of projects, therefore, is not on ground owned by the United States but by the states. The process is no different from the development of countless works projects in the nation. The compact backers point out that the Federal government has no more right to the properties involved than that the Lincoln tunnel or the Tri-Borough bridge should remain the possession of the Federal government. Both kinds of projects—flood control and transportation—are built with finances from Federal and local sources. When the properties are finished, the possession remains with the local authorities. True it is that one involves WPA money and the other flood control money, but both are constructed with funds derived from taxpayers who surely have some right to retain improved property built with their own money.

Mr. Ryan feels that if the states would fall in line with the requirements of the 1936 Act as he interprets them, ratification by Congress would have been unnecessary. The states, however, unwilling to pass title to the lands or

to pay cash to the Secretary of War for the purchase of lands, chose another course which required ratification. The issue of states' rights was too important to be passed by in mere submission to the tenets of a loosely drawn law.

THE compacts were drawn up by a joint commission from the states involved. Members of the commission included some of the most able technical, legal, and executive leaders in the various states. The results of its labors were remarkable for within one year agreements had been approved by legislatures, governors, and congressional committees. The procedure proved that interstate agreements could be made equitably, even though benefits were not the same for all parties. Vermont and New Hampshire showed a willingness to cooperate in the sacrifice of lands which probably could not be accomplished in any other way except through an interstate agreement. Throughout the conferences the Army Engineers sat in, and the compact authorities claim that if there had been anything illegal in the compacts, the Army authorities should have informed them. In fact, the Secretary of War, gratified at the prompt response of the states, said in a radio broadcast:

Under the existing legislation, the rights of way are furnished by the state or sub-



"IN March, 1936, the disastrous floods in the Connecticut and Merrimack valleys caused direct and indirect damages of over \$100,000,000. In the Connecticut valley alone, the direct loss was \$35,000,000 with \$19,000,000 (55 per cent) in Massachusetts and \$11,500,000 (33 per cent) in Connecticut. Hartford, Holyoke, and Springfield areas totaled losses of \$14,700,000."

PUBLIC UTILITIES FORTNIGHTLY

divisions thereof and should remain the property of the state. In return, the states should reserve for future development the conservation of the values of the individual reservoirs. The flood control program thus becomes a coordinate and comprehensive one for general conservation which will not only reduce the annual losses now sustained from floods, but will also return direct benefits to the areas in which the reservoirs are located. (Italics supplied.)

That was a clear statement supporting the position of the states; there was no question of title passing to the Federal government; reservation of future development was left to the states; and direct benefits accrue to the states in which the reservoirs are located. Nevertheless, in direct opposition to that position, the Army's circular letter 42 claiming the right to have title conveyed to the United States on all projects with potential power value, was sent out on August 30, 1937.

At the time of the issuance of this order the Federal Power Commission had only recently given permission for the construction of dams and reservoirs with power development on nonnavigable streams in Vermont and New Hampshire. In the hearings before the House Committee relative to the flood control compacts, Representative Phil Ferguson, a member of the House Committee, pointed out that in 40 projects where allotments had been made, including reservoirs in several states, "the states are taking title to the land." The minority of the committee headed by Representative Voorhis of California, however, stated:

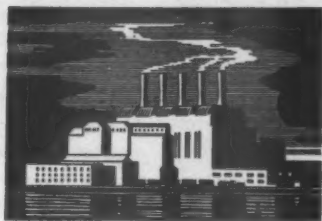
... Congress and its committees must be guided not only by the letter of legal precedent, but by wise consideration of the effect of the proposed legislation upon the principles of government which have emerged or are emerging out of the necessities of actual situations confronting the American people ... these matters properly to be governed

by national policy and legislation . . . The time to establish once and for all the principle that all power development at Federal dams is subject to the control, not of the states, but of the Federal government through the Federal Power Commission, is now.

THE immediate objective of the Connecticut compact was to control 7.6 per cent of the river basin, and ultimately, in a long-term program, 21 per cent. In order to protect the states which lease the lands to the interstate commission for 999 years, and to prevent that body from becoming a superstate, Art. VIII provided for separate agreements between the signatory states and the Federal government. Each state reserved "the benefit of water conservation, power storage, or power development that may be inherent in such reservoir site" and was prepared to stand the additional cost of such improvement. However, no such proposed work could be inaugurated without the approval of the Federal government which thus had the final decision in the matter. The compact framers by this means sought to retain the inherent rights of both the states and the Federal government. The 1936 Act, while emphasizing that flood control was the main purpose of the law, included Art. V which permitted "penstocks and other facilities adapted to possible future use in the development of adequate electric power" when authorized. Thus the question of future use of dam sites was raised, and in the compacts, these rights were subject to negotiation between the states and the Federal government.

THE compacts have been attacked by former Chairman McNinch of

NEW ENGLAND'S STAND ON FLOOD CONTROL COMPACTS



Flood Control and Power

THE states hold that the compacts were conceived in good faith under an existing law with the supervision and approval of the War Department, and have been reported favorably by the Senate and House committees. The states want to know the answer to a few questions such as: . . . Why has the primary purpose of flood control been turned to a fight over power development? . . . Why does the administration want to underwrite the entire cost unless it seeks ultimately to go into the power business?

the Federal Power Commission as well as by Mr. Ryan as being in conflict with the Federal Power Act of 1920 which gives the commission authority over the navigable waters of the United States. It is clearly evident that the act does not grant authority over non-navigable waters. All of the proposed projects in the compacts are on non-navigable streams. The navigability of the Connecticut ends at Holyoke. The reservoir and dam sites lie in the headwaters of the river. Interstate commerce is in no way affected. Intent to construct a dam on a nonnavigable stream by anyone, including a state, must be filed with the power commission, which must make an investigation to determine whether or not interstate commerce is affected. If not, the commission has no authority in the matter, and the Federal Power Act provides for construction upon compliance with

state laws. States and municipalities are given preference under such conditions. The Federal Power Commission, in a decision February 3, 1937, after having found that a power dam about to be built at Pittsburgh, New Hampshire, did not interfere with interstate commerce and was located on a nonnavigable stream, withdrew from the picture, and handed the matter back to the state of New Hampshire. If the Federal Power Commission could render this decision a year ago, why should it not render the same kind of a decision in the case of the compacts. Where did the Federal Power Commission acquire this alleged authority over nonnavigable streams?

Mr. Ryan attacks the compacts because of their interstate character in permitting water-power development, and says that no agreements of this kind have been allowed. The compacts

PUBLIC UTILITIES FORTNIGHTLY

however, are not at fault as the 1936 Act was unique in permitting such agreements. He believes that if the compacts are to be ratified, all reference to power development should be eliminated. As already pointed out, all but one of the reservoirs in the Connecticut compact have no power potentialities if the dams are built primarily for flood control; but again, Vermont and New Hampshire do not want to sacrifice the possibility of such development within their borders. They feel that they have been accommodating to the extreme in cooperating with their sister states in the loss of property, and that any additional compensation is due them from the use of their own natural resources.

THE Brown-Casey bill introduced in August, 1937, permitting the Secretary of War to acquire lands in states not cooperating in flood control projects, practically brushes aside states' rights and threatens the breakdown of state government itself. In the hearings before the House Committee, there were many citations of ownership remaining with the states in flood control developments, such as provided for in the Muskingum valley, and the Mississippi Flood Control Act of 1928. In the latter case, money for lands was turned over to the Secretary of War, but the lands were turned back to the states when the projects were completed. Nor were these projects simply levees with local benefits, but included spillways affecting other states. The compact backers claimed ample precedent for the retention of titles within the states.

These examples, also, dispose of the argument that discrimination and favoritism would be given to New

England against other states participating in the Federal flood control program. The compacts followed precedent in the retention of titles to the states. If the Brown-Casey bill were to become law, the principle would undoubtedly become retroactive and states would be required to give up titles which they now possess.

Furthermore, under the bill, the Federal government would make the states pay not only for lands used for flood control but also for other property necessary for the eventual construction of power houses, etc., required for a complete program of water conservation. Competent authority has estimated that under these circumstances the states would pay about 68 per cent of the whole bill. The Brown-Casey bill was also so loosely worded that there was no provision naming the sites, thus making it impossible even to calculate estimates for presentation to the various legislatures.

THIS bill evoked the wrath of New England; and the governors were strong in their denunciation. It must be borne in mind that three of the four states have no regular legislative sessions in 1938; and amendments to the compacts would require special sessions. Consider the comment of the governors:

Aiken-Vermont-Republican: "I will not call a special session of the Vermont legislature for the express purpose of surrendering the natural wealth of our state to anyone."

Murphy-New Hampshire-Republican: "We will never surrender God-given natural resources for a mere pottage of gold from the Federal government."

NEW ENGLAND'S STAND ON FLOOD CONTROL COMPACTS

Hurley - Massachusetts - Democrat :

"The people of Massachusetts and the four signatory states . . are not willing to sign away their rights as sovereign states for a remote and negligible possibility which may exist in name but certainly not in fact to any useful degree."

Cross-Connecticut-Democrat: "I am profoundly interested as any citizen of New England in the reduction of rates for electricity to the point of live-and-let-live; but much as I love music, I cannot play the violin while Rome is burning . . . There is no room for a TVA in Vermont, nor in Connecticut, nor elsewhere in New England."

Opponents of the compacts from the start have tried to divert the issues from flood control to power development. Again, the streams involved are small, nonnavigable waters, not mighty Columbias or Tennessees. The problems do not concern national defense or navigation. The question of power development is distinctly limited with only one small project originally marked for economical power development. Why under such conditions should the public utility companies ever want to fight for the compacts? They have not done so in any way. Why should they try to battle against almost universal opinion in these states against water-power monopoly? Even the very

development of power is carefully safeguarded in Art. VIII in agreements between the state and the Federal government. Any so-called power trust would be ineffective under such conditions.

Yet some of the Connecticut representatives see a bogey "power trust" rising out of the brooks of northern New England. Representative Phillips of Stamford claims that the dams are not going to be built high enough and, therefore, TVA rates cannot be established in New England. He visions the Connecticut as a second Columbia. Representative Kopplemann of Hartford calls the agreement a "power" compact and a battle between public utility rights and states' rights. However, Judge Daly, the attorney general of Connecticut and a member of the commission, at the time of the framing of the compact, said:

Some of the unfounded and silly statements alleged to have been made in connection with the compact would indicate that those defending it in some way or other are acting under the spell of the power interests. We appreciate that we do not need to tell you that no one connected with a power company in any way influenced us at any time in connection with the negotiations for, or the writing of, the compact.

IN November, the New England governors asked for a conference with the President over flood control. At a



"In November, the New England governors asked for a conference with the President over flood control. At a White House meeting in mid-January, the administration announced a new policy, namely, that the Federal government would offer to pay the whole costs of the projects and the states nothing—IF THE STATES WOULD RELINQUISH ALL TITLES TO THE LAND. Thus for a price of enormous proportions, flood control would be given to New England and unlimited power to the Federal government."

PUBLIC UTILITIES FORTNIGHTLY

White House meeting in mid-January, the administration announced a new policy, namely, that the Federal government would offer to pay the whole costs of the projects and the states nothing—if the states would relinquish all titles to the land. Thus for a price of enormous proportions, flood control would be given to New England and unlimited power to the Federal government. The proposition entirely disregards the idea of interstate agreements, nullifies the Flood Control Act of 1936, and opens virgin territory for projects not covered by that law. Already Senator Miller of Arkansas has brought forward a bill calling for the construction of 69 dams and reservoirs at full Federal expense in the Ohio and Mississippi valleys, costing \$480,958,000 beyond those covered in the 1936 Act and in conformity with the McCormack-Brown bill which embodies the policy of the President.

This bill, if passed, would undoubtedly be followed by a plea that in principle all flood control projects built in past years with local contributions should be reimbursed. Thus, Senator Bulkley of Ohio is reported to have announced that if the bill becomes law, he would ask reimbursement for the Miami (Dayton) Flood Control, built in 1912 with local money, and for the Muskingum valley.

THE bill raises the question of states' rights. On what basis could the War Department step in and take the lands in states without consent? National defense, interstate commerce, and sanitary conditions are not involved. Once possessing titles there is little doubt that the government will enter the power business.

The McCormack-Brown bill was opposed by an almost solid phalanx of New England authorities. The National Rivers and Harbors Congress, held a few days after the presidential conference, voted unanimously to support the compacts. Dr. Morgan, formerly of the TVA, in testimony before a Senate committee, said that aside from a few great rivers, water power will probably become a minor item in the control of most rivers.

The states want to know the answer to a few questions such as:

Why are compacts bills being held up after being reported favorably?

Why has the primary purpose of flood control been turned to a fight over power development?

Why must cash be provided for the Secretary of War when lands simply have to be made available?

Why are titles demanded by the Federal government to properties which later the states must operate and manage?

Why does the Federal Power Commission claim authority over nonnavigable streams not involved in national defense or interstate commerce—an authority never granted by the Congress?

Why does the Federal Power Commission seek to usurp the functions of the Army Engineers?

Why were orders given to the Army on August 30th to obtain title to all lands on which water projects were being erected—an illegal order contrary to the very fundamentals of the American Constitution?

Why does the administration want to underwrite the entire cost unless it seeks ultimately to go into the power business?



What Is the So-called Prudent Investment Theory?

Its pedigree and meaning and the present status in the law in respect to it

By ELLSWORTH NICHOLS

THE prudent investment theory of rate regulation, championed by the President of the United States in a recent White House press conference, has been much discussed but little understood. Published comments on the President's remarks reveal such misapprehension as to the prudent investment question that we should stop to examine its pedigree, its meaning, and its present status under the law. Only then can we intelligently decide whether we should favor it. If it is acceptable, the next step is to discover by what means it can be made legally effective.

These pronouncements of the President recall his early predilections for the theory. They are reminiscent of the days when he was at loggerheads with members of the New York commission, who insisted upon basing the return on fair value instead of prudent investment. Back in 1932, when Mr. Roosevelt was governor of New York, he said in a speech at Milwaukee:

And I have made it fully clear, and I know that the great majority of people in Wisconsin will agree with me, that the so-called reproduction theory is wholly unsound, and that we must substitute for this a rate base which rests upon the theory of prudent investments—in other words, a fair return on the actual money going into the public utility itself, and no more.

The prudent investment theory is of comparatively recent origin. Any assumption that it was blessed by the common law in the horse-and-buggy days is fallacious. It is only during the past fifty years or so that there has been any attempt to fix rates by making an allowance for return upon any rate base. Businesses affected with a public interest under the common law were allowed to take a reasonable toll. They were allowed to charge what the service was worth. The common law furnishes no precedent to support prudent investment as the rate base.

THE meaning of prudent investment as a factor in public utility rate regulation is best understood by first considering what place it would

have in rate making. Getting down to fundamentals, we find the situation about like this: Property owned by private investors is dedicated to public use. The users of the property must pay for that use. This payment is in the form of a profit, or, in the language of public utility regulation, a return to the investors over and above cost of operation. Return is, of course, related to something of the investors—their property, the amount they have invested, or something else representing their interest in the business. Return is most conveniently expressed as a percentage of a figure—an amount in dollars—which is equivalent to that something. This figure is called the rate base. What the rate base shall be is the crux of the problem.

One school of thought holds that the rate base should be equivalent to the present value of the property. It is argued that since the property used by the public is still owned by the investors, whether they sell it or continue it in public service, their rights in the property are measured by its value. If it is worth less than its originally cost, the property owners must take the loss. If it is worth more than it originally cost, the property owners are entitled to the benefit.

THE opposite school of thought holds that the rate base should be the prudent investment. They say that when property is devoted to public use, the owners, although having legal title, no longer have a right to the benefit from increased values; and, as a corollary, it follows that the owners need not absorb the loss if the property becomes less valuable than its original cost by reason of changes in values

which result from the play of economic forces.

Variations in this theory have cropped up. For example, there is the peculiar theory advanced by Senator George W. Norris that the rate base should be the original cost or the present value, whichever is lowest. He would let the ratepayers have their cake and eat it too. If prices go up, the rate base remains static; if prices go down, the owners of the property take the loss. This is similar to a prevailing notion of profit and loss in industry. If those who risk their money make a profit, they must share it with their employees and with the public by way of the tax route. If they suffer a loss, their partners in profit sharing let them stand the loss.

Other advocates of the prudent investment theory do not flatly declare that prudent investment shall be the rate base; they recognize value as the figure to which the return percentage shall be applied but say that prudent investment shall be the dominant, controlling measure of that value. This is an adulterated form of the prudent investment theory. It does not recognize plain facts affecting value but would avoid the force of the present value rule by saying that something is present value which may or may not be.

WE have seen that the prudent investment theory would require the allowance of a return to public utility owners based on prudent investment. The question then arises, What is prudent investment? Probably it is the same as the term "actual legitimate original cost" mentioned in the Federal Power Act. It is probably the same as original cost as this term is

WHAT IS THE SO-CALLED PRUDENT INVESTMENT THEORY?

commonly used. Other expressions having the same meaning are "actual reasonable investment" and "actual amount of money devoted to the public service." Those who speak of original cost or who use any of these other terms usually mean prudent, legitimate, original cost—not a wasteful, imprudent, improper cost.

Book cost may be the same as original cost, or it may not. Under present accounting systems carefully followed, it should represent actual original cost, although property transfers may cause some discrepancy. Purchase price is not necessarily original cost.

The prudent investment theory is explained by its most eminent protagonist, Mr. Justice Brandeis of the United States Supreme Court, in his dissenting opinion in the Southwestern Bell Telephone Company Case. He concurred in a judgment upsetting a commission rate order but disagreed with the majority of the court as to the reason for reversal. He took his stand squarely upon the proposition that the order of the commission prevented the utility from earning "a fair return on the amount prudently invested in it." The majority had ruled that the commission prevented the company from earning a fair return upon the present value. The dissenting justice in a footnote enlightens us as to the meaning of the term, particularly the word "prudent." He states:

The term prudent investment is not used in a critical sense. There should not be excluded from the finding of the base, investments which, under ordinary circumstances, would be deemed reasonable. The term is applied for the purpose of excluding what might be found to be dishonest or obviously wasteful or imprudent expenditures. Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown.¹

OTHER terms met with in rate regulation are historical cost and estimated original cost. These terms as commonly used refer merely to substitutes for actual original cost or prudent investment. Regulatory bodies sometimes turn to them when actual cost figures are not available. Historical cost seems to be the cost determined by applying to units of property the costs which, as indicated by the history of prices, prevailed at the time such units were installed. Estimated original cost would seem to come very close to being the same thing. In substance we may say that the prudent investment theory calls for a rate determined by the use of costs providently incurred or, lacking complete records, the costs which probably were, or should have been, incurred. Recent accounting orders by various commissions will shed light on this subject.²

¹ Missouri ex rel. Southwestern Bell Teleph. Co. v. Public Service Commission, 262 U. S. 276, P.U.R. 1923C, 193, 200.

² American Teleph. & Teleg. Co. v. United States (1936) 299 U. S. 232, 16 P.U.R. (N.S.) 225.



"THE position of the Supreme Court has been that it is the property of the utility owners and not something else which is used in the public service. The investors do not, as bondholders would, make a loan of funds for public use. They invest in property and devote the property itself to the public use. They do not part with title to the property."

PUBLIC UTILITIES FORTNIGHTLY

The reference to the "reproduction theory" in Mr. Roosevelt's Milwaukee speech typifies one of the common misconceptions concerning the subject. The twin battlers for recognition in the regulatory arena are prudent investment and present fair value—not reproduction cost. Even so well informed a publication as *The Wall Street Journal*, in commenting upon the President's remarks, fell into the error of comparing reproduction cost with book cost instead of comparing present fair value with prudent investment. Others have done the same. The fact is that the United States Supreme Court has never sanctioned the use of reproduction cost as the rate base or as the exclusive test of value.⁴ It has consistently held over a long period of years that present value is the legal basis for rates, and that in determining present value there must be a consideration of present prices, or reproduction cost, along with other evidence of value. All attempts to interpret the Supreme Court decisions so as to make reproduction cost the equivalent of the rate base or present value have met with failure.

THE position of the Supreme Court has been that it is the property of the utility owners and not something else which is used in the public service. The investors do not, as bondholders would, make a loan of funds for public use. They invest in property and devote the property itself to the public use. They do not part with title to the property. They are the owners of the property in public use and have the right to compensation based upon the

⁴ California R. Commission v. Pacific Gas & E. Co. (1938) 21 P.U.R. (N.S.) 480, 58 S. Ct. 334.

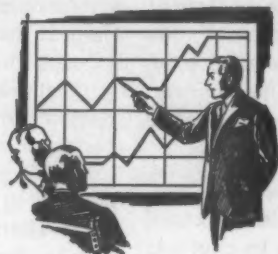
value of their property right; and they, as the owners of the property, must suffer the loss from any lessening of the value of that property right.

In an early case the Supreme Court first announced this rule in approving the contention of ratepayers that fair return should be based upon present fair value rather than upon the investment in railroads. The court declared that "present as compared with the original cost of construction" and other factors are matters for "consideration" in determining fair value.⁵ All the decisions of the Supreme Court since that time, so far as they relate to reproduction cost or original cost, have dealt with the question whether these elements have been given proper consideration in a determination of the fact—fair value, as the basis for deciding the question of confiscation. Decisions in which there has been a failure to accord proper, if any, weight to present enhanced costs of construction, with resulting confiscation, have been reversed. Decisions in which the Supreme Court found that sufficient recognition had been given to present price levels have been sustained even though, as in the Los Angeles Gas & Electric Corporation Case, the commission's rate decision had been based on historical cost.⁶

⁵ Smyth v. Ames (1898) 169 U. S. 466, 42 L. ed. 819.

⁶ Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission, *supra*; Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission, 262 U. S. 679, P.U.R. 1923D, 11; Georgia R. & Power Co. v. Georgia R. Commission, 262 U. S. 625, P.U.R. 1923D, 1; McCardle v. Indianapolis Water Co. (1926) 272 U. S. 400, P.U.R. 1927A, 15; Los Angeles Gas & E. Corp. v. California R. Commission, 289 U. S. 287, P.U.R. 1933C, 229; Dayton Power & Light Co. v. Ohio Pub. Utilities Commission (1934) 293 U. S. 290, 3 P.U.R. (N.S.) 279.

WHAT IS THE SO-CALLED PRUDENT INVESTMENT THEORY?



No Prudent Investment Theory under Common Law

"THE prudent investment theory is of comparatively recent origin. Any assumption that it was blessed by the common law in the horse-and-buggy days is fallacious. It is only during the past fifty years or so that there has been any attempt to fix rates by making an allowance for return upon any rate base. . . . The common law furnishes no precedent to support prudent investment as the rate base."

SEVERAL public service commissions have favored prudent investment as the basis for establishing rates, but so far as can be discovered no Federal courts have deviated from the rule that return must be based upon fair value. In case after case they have accepted this rule as settled by the United States Supreme Court and, without discussing its merits, have devoted their attention to the question of evidence submitted to prove the amount of that value.⁶

The so-called Massachusetts rule of "money honestly and prudently invested" is very much akin to the prudent investment theory, but in Massa-

chusetts securities have been so stringently regulated for many years that capitalization is usually accepted as representative of the prudent investment. In other states, where security issues have not for so long a time been under the eyes of the regulatory commissions, capitalization is practically disregarded in finding a rate base. The Massachusetts rule is extensively discussed and criticized in a Federal court decision⁷ but has never been before the United States Supreme Court.

Only in the state courts has there been judicial support for prudent investment, and very little at that. In one of the earlier cases a supreme court judge in New York declared that the policy of the state with reference to gas companies had been, and still appeared to be, that the money actually expended by investors for construction purposes

⁶ For a review of the law, see *Georgia R. & Power Co. v. Georgia R. Commission* (U. S. Dist. Ct. 1924) P.U.R. 1925A, 546. As examples of Federal district court cases which distinctly hold that prudent investment is not the proper basis for rates, see *Pacific Teleph. & Teleg. Co. v. Whitcomb*, 12 F. (2d) 279, P.U.R. 1926D, 815; *Worcester Electric Light Co. v. Attwill*, 23 F. (2d) 891, P.U.R. 1927E, 796, P.U.R. 1929B, 1.

⁷ *Worcester Electric Light Co. v. Attwill*, *supra*.

should be the basis of measuring their right to a return.⁸ Likewise, in some of the earlier Washington cases it was held that under the local statutes present fair value need not be determined.⁹ These cases, however, have been criticized by a Federal court.¹⁰

IF prudent investment is to be substituted for fair value in rate cases, how can such substitution be effected? Suggestions have been made that Congress might legislate and that state legislatures might give their approval. There is nothing in the judicial pronouncements of the past which would lead us to believe that the substitution could be made by these means. The decisions of the Supreme Court in favor of fair value as the rate base are founded on the Federal Constitution without regard to the question whether prudent investment or some other basis has been prescribed by any legislative or regulatory body.

The conclusion seems to be inescapable that the only way prudent investment can be substituted for fair value

as a rate base is by amendment or a new interpretation of the Federal Constitution. If the people, through the process of constitutional amendment, want to say that public utility investors shall receive a return based upon prudent investment whether or not that might confiscate property, apparently there is no way to prevent such action. The other alternative would probably be equally decisive. The United States Supreme Court could undoubtedly reconsider its position and adopt the theory advanced by Mr. Justice Brandeis. Recent changes in the personnel of the court and prospective changes have raised the hopes of prudent investment advocates that this may happen.

FROM what has been said, it seems reasonable to describe the present status of the prudent investment theory in this way. Fair value rather than prudent investment is now the only legally sanctioned basis for rate making. Fair value is not the same as reproduction cost. Prudent investment is not the same as book cost or purchase price. The prudent investment theory is not supported by legal precedent. The prudent investment theory may become the law of the land by constitutional change either through amendment or judicial interpretation and not otherwise.

⁸ Kings County Lighting Co. v. Lewis, 110 Misc. 204, P.U.R. 1922D, 145. See also Bronx Gas & E. Co. v. Public Service Commission (N. Y. Sup. Ct. 1922) P.U.R. 1923A, 255.

⁹ Pacific Coast Elevator Co. v. Department of Public Works (1924) 130 Wash. 620, P.U.R. 1925B, 618; State ex rel. Spokane v. Kuykendall, 119 Wash. 107, P.U.R. 1922D, 467.

¹⁰ Pacific Teleph. & Teleg. Co. v. Whitcomb, 12 F. (2d) 279, P.U.R. 1926D, 815.

Coming Features

THE SWELLING TAX BURDEN

By ALFRED G. BUEHLER



STORM CLOUDS OVER THE REA

By HERBERT COREY



Waste in Ill-considered Federal Public Works Projects

Part II. The Grand Coulee Project

In the first article of the series the author discussed Federal aid to navigation on the Missouri from the economic standpoint as part of the Federal public works program. (See PUBLIC UTILITIES FORTNIGHTLY of March 31, 1938.) Part III of this series will treat of Grand Coulee as an irrigation project.

By HENRY EARLE RIGGS

IN a special issue presenting a number of papers dealing with the technical engineering problems connected with the work at Grand Coulee dam, the *Engineering News-Record* of August 1, 1935, says, in an editorial introduction:

Grand Coulee occupies a sensational place in the public-works-for-employment program. It has been the object of political seeking, impulsive action, and violent controversy over economic value, ultimate function, and engineering design. Withal it is one of the greatest construction operations of all time, and this operation is being carried on with a speed and vigor and an ingenuity of attack that make it extraordinary . . . The present situation came about because the work was begun without studied design or purposeful conception of ultimate service value.

The project indeed is one of the greatest of all time. The main river dam when finished will be the greatest masonry structure ever built by man.

Many years will be required to complete the irrigation project and put the land in condition to offer homes to "farmers driven from the dust bowl." Hundreds of millions of dollars will have to be spent before the first 40-acre farm is irrigated. Added tens or hundreds of millions not now even mentioned will have to be invested for transmission and transformer equipment to carry to market the power that must be sold at a profit to subsidize the irrigation that is the stated objective of this particular construction.

This consideration of the project has to do only with the question of the economic justification of it. Is it a needed public work? Is it good business to spend half a billion dollars to irrigate additional farm land when we are curtailing farm production? Is this the most economical plan for putting

PUBLIC UTILITIES FORTNIGHTLY

water on this land if it be found that more farm land is wanted? In view of the certainty that irrigation must be subsidized by the sale of power, is there a market for the power that this dam will produce? Who authorized this great expenditure? Why were the plans and the whole objective of the undertaking changed and by whose authority? Has the Congress of the United States ever had this project before it for discussion and approval? Do more than a handful of members of Congress know about it, or know what it is proposed to do or what it will cost?

THESE and many other similar questions need to be answered. The thinking citizens of the United States must be given the facts regarding this immense project in order that enough public sentiment be created to compel the Congress or the administration to give the answers to these and similar questions.

The writer fully and freely admits that much employment has been provided, but he thinks that just as much could have been given on public works of greater value to a much greater part of the population. These articles are not intended as an attack on the policy of public works for employment.

The writer recognizes that this great construction job is being done in a most magnificent manner by men who clearly rank among the master builders of this generation and has no word of criticism of the work of construction.

The attempt will be made to present the facts which are of record, with reference to sources of information which have been used, and to permit these facts to make their own argument.

In order that a clear understanding

of the whole project may be had, a description of the Grand Coulee and the Columbia Basin, the territory it is proposed to irrigate, must necessarily precede a statement of what the whole plan is intended to accomplish, and both of these introductory statements are essential in an orderly presentation of the essential facts.

GRAND Coulee dam is located on the Columbia river in north central Washington nearly a hundred miles northwest of Spokane. In prehistoric ages the territory in the vicinity was covered by a series of lava streams to a great depth forming an immense lava plateau in what is now central Washington. In later ages a flow of glacial ice coming from the North blocked the river, which had been flowing in the channel it now occupies, and formed a great ice dam which created a lake that filled the valley to the brim. The overflow from this lake following the glacier southward formed a new channel for the Columbia which it occupied possibly for centuries, long enough to carve out the gorge known as the Grand Coulee. Finally the glacial dam disappeared, and the river once more found its way back to its original (and present) channel.

Grand Coulee as it exists today is a gorge from a mile to two miles or more wide, with vertical walls of lava and granite from 600 to 800 feet high. The main gorge is some thirty miles in length. At the lower end there was a great cataract which was about three times the width and height of Niagara Falls, the site of which is now known as Dry Falls.

The floor of the Coulee, which is some 700 feet above the water level in

WASTE IN ILL-CONSIDERED FEDERAL PUBLIC WORKS PROJECTS

the Columbia, is occupied by a highway and by the construction railroad running from the Northern Pacific Railway to the dam site.

To the south of the southerly end of the Coulee and Dry Falls there is a tract of land approximately 1,200,000 acres in extent which is supposed to have been the bed of an ancient lake, with rich and fertile soil, but with a limited rainfall varying from 4 to 10 inches per year.

This land is mainly in the southern part of Grant county and the western part of Adams and Franklin counties, Washington. The attempt was made some forty or more years ago to develop this area as a dry farming district but it proved a failure. Many of the farms have been abandoned and the villages built in the area are practically dead. A large percentage of the land is now owned by banks, insurance companies, and others than farmers. The present population of Grant county, which averages two persons per square mile, is but little more than half that of 1910, and the population of the Columbia basin proper probably does not average much more than one per square mile.

There can be no doubt either as to the fine quality of the soil of this dis-

trict, or as to the necessity for irrigation if it is ever to be made productive and support a population. For twenty years or more the possibility of development by irrigation has been under discussion and the present project has been actively promoted by several interests. The history of these various efforts at development is to be found in a communication from the Bureau of Reclamation, on pages 481 to 489 of House Document No. 103, 73rd Congress, first session.

THE Grand Coulee project, in its present form and with the objective now stated by the Bureau of Reclamation, is a plan to irrigate the Columbia basin by pumping from the Columbia river at the site of the present construction work, which is at the head or the north end of the Grand Coulee. The plan contemplates the development of power in immense quantities, the use of secondary power for operating the largest pumping plant ever designed in the world, the building of two dams across the Coulee some twenty-three miles apart, and the forming of a great irrigation reservoir in the Coulee itself. Following all this will come the construction of some 250 miles of main canal and structures for a complete irrigation system.



"THE Grand Coulee project, in its present form and with the objective now stated by the Bureau of Reclamation, is a plan to irrigate the Columbia basin . . . The plan contemplates the development of power in immense quantities, the use of secondary power for operating the largest pumping plant ever designed in the world, the building of two dams across the Coulee some twenty-three miles apart, and the forming of a great irrigation reservoir in the Coulee itself."

PUBLIC UTILITIES FORTNIGHTLY

It becomes very evident on a study of available data that the great cost of these structures cannot possibly be justified or repaid by irrigation alone and that irrigation must be subsidized by the sale of immense quantities of electrical energy at a profit.

Inasmuch as this narrative is to deal with economic questions, and not engineering ones, a very brief statement of the magnitude of these major structures is all that is necessary to an understanding of the enterprise we as a nation are engaged in. This narrative must of necessity deal with superlatives. All of the information given out at the dam is filled with them.

THE plan that finally developed something over a year after work had been commenced on an entirely different and much smaller structure that was hastily improvised to put men to work at once, will be "the world's largest masonry structure." The main dam will be 550 feet high above bed rock, 500 feet thick at the base and 30 feet at the top. It will be 4,300 feet long. Spillway capacity is to be provided for about 1,000,000 cubic feet per second. The dam will contain approximately 11,250,000 cubic yards of concrete. It will create a lake 151 miles long extending to the International Boundary and having a capacity of more than 5,000,000 acre feet. No navigation locks will be provided, and it is evident from a study of the report of the Corps of Engineers of the Army

that navigation on the upper Columbia is not at present contemplated.

PLANS provide for two power houses, one on each side of the dam. Each will contain nine 120,000 kilovolt ampere units driven by 147,000 horsepower turbines, 335 feet maximum head. The west power house will contain three 5,000 kilowatt service units. A tabulation of the Bureau of Reclamation, as outlined below, shows the comparison of capacity with Boulder dam.

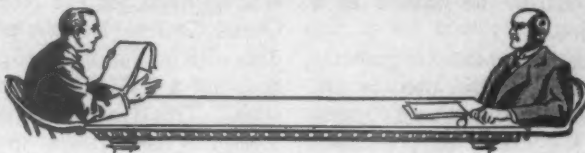
The above figures indicate the immensity of the plant. The rated horsepower capacity equals 15.85 per cent of that of all the present hydro turbines in the United States, given in a Department of the Interior release to the press dated February 16, 1936, as 16,079,475 horsepower. It is greater than the rated horsepower of water wheels of any state in the Union, California alone approaching it with 2,358,000 horsepower, and is twice as much as all of the New England States.

The stated firm power of seven billion kilowatt hours is more than was produced by all classes of generating equipment in any state in the Union in 1932 excepting only New York and California.

These facts not only indicate the magnitude of the power plant itself but clearly point to the almost impossible problem of finding a market for the power in the remote Northwest, far from any large cities, and in a terri-



	Boulder Dam	Grand Coulee Dam
Rated capacity (hp.)	1,835,000	2,550,000
Firm power developed (kw. hr.)	4,330,000,000	7,000,000,000
Secondary power per year (kw. hr.) ..	1,550,000,000	4,170,000,000



The Cost of Grand Coulee

“How much is this plant going to cost? Only the Lord knows . . . In the light of . . . experience, and of the unprecedented difficulties of the work, it is not unreasonable to expect a final cost of \$275,000,000 to \$300,000,000 on the dam and power plant WHEN ALL THE COST IS COUNTED, and of as much more on the irrigation works, plus the cost of the transmission system necessary to permit the power to go to market.”

tory with many large competing hydro developments.

To provide for irrigation a pumping plant is to be built independent of the dam on the east or south side of the river, with 20 pumps each with a capacity of 800 cubic feet per second when operating under a 370-foot head. Power will be furnished by 20 motors of 33,000 horsepower capacity.

As high water in the Columbia occurs in June and July when irrigation requirements are greatest, it is expected that secondary power will be available for most of the pumping.

This will be “the largest pumping system yet devised in the world” with its total capacity of 16,000 cubic feet per second.

The two earth- and rock-filled dams across the Grand Coulee will form a storage reservoir, the water surface of which will be 280 feet above the Columbia river reservoir.

All of these structures will of necessity have to be completed and the 11-

mile main canal, with a capacity of 15,000 second feet provided, before any part of the irrigation proper can be built and put in operation.

DOCTOR Elwood Mead, in a letter to the Chief of Engineers of the Army, dated March 19, 1932 (House Doc. 103, 73rd Cong., 1st Sess., p. 5), says:

It will require at least ten years . . . to build the dam and power plant, and another ten or fifteen years to absorb the power thus made available. These things must precede the large expenditure to build the works required for irrigation.

If the irrigation of the million acres is not to be done at one construction period, but in blocks of 120,000 to 150,000 acres over a period of twenty or more years as the settlement of the district warrants, Grand Coulee appears to be a long-time continuing project which calls for an expenditure of several hundred million dollars now for work which admittedly will not be self-supporting for many years, and for added millions each year for the de-

PUBLIC UTILITIES FORTNIGHTLY

velopment of irrigation. That sort of project can hardly be classed as a work relief job.

One of the oft-repeated arguments in favor of this scheme, used by Dr. Mead in a letter to Senator Dill, was because of the influx of population from the drouth-stricken areas further east. Is there not danger that these drouth-stricken farmers may wander in the desert, like the Israelites of old, for a period of forty years?

THE so-called "308 Report" on the Columbia river was published as House Document No. 103, 73rd Congress, 1st Session. This report forms the basis for any study of the Grand Coulee project. The study covered a period of five or six years. It discusses the power and irrigation development of the Columbia basin in great detail, with a large volume of statistical data which support the conclusions of the Army Engineers. It submits a general plan for power development on the entire river. It recommends that these developments be made by private interests or municipalities under the direction of the Federal Power Commission. It devotes much space to the Grand Coulee project as now being built, evidently doing so because of the fact that it was promoted by interests from the state of Washington. This report will be referred to and quoted from in the following discussion of both the irrigation and power objectives of the project.

The writer has given this report careful study and considers it a masterly piece of long-time planning presented in an orderly and convincing manner.

IN the rush to find work for unemployment relief in the autumn of

1933 the first project to receive Federal approval for the Northwest was Grand Coulee. Not the present great dam with irrigation stated as the objective, but a \$63,000,000 "power yardstick." This dam was to raise the river level 150 feet. It was to be the first stage of a program which might involve an increase in the height of the dam and ultimate irrigation at some future time. It was to furnish a complete operative power development—a yardstick for power costs in the state which had the cheapest power rates and the largest power consumption per capita of any state in the Union.

After extensive preparatory excavation and the making of plans for the low dam a contract was let on July 16, 1904.

The allocation of money to this Grand Coulee project in 1933 appears to have started political action. The plan for development of the river made by the Corps of Engineers called for a dam at Warrendale, with an alternate site at Bonneville, 3 or 4 miles distant. This was a dam at tidewater, the building of which would extend deep water navigation 50 miles up the river to The Dalles. It was 40 miles from Portland and close to the market for power. The good people of Oregon wanted it, insisted on it, and secured its approval and the allocation of \$31,000,000 some few weeks after the approval of the Grand Coulee project. That action meant the building of two competing power "yardsticks" on the same river and with the same territory in which to find their power market—the states of Oregon, Washington, and Idaho.

MR. Keener, Senior Engineer of the Bureau of Reclamation, said:

WASTE IN ILL-CONSIDERED FEDERAL PUBLIC WORKS PROJECTS

Certain objectionable construction features were involved in building the high dam in two stages . . . It was thought that if it should be later decided to have a combined power and irrigation development, this could be accomplished by increasing the size of the original dam. Upon further study of the effect of imposing a high dam upon the low dam, the engineers of the bureau reached the conclusion that a change in size and shape of the foundation, to make possible the ultimate construction of a high dam needed in irrigation, should be made now.¹

Here we find a clear case of the adoption and approval of a \$63,000,000 power project by an emergency agency which was looking for work for the unemployed, and the allocation of that amount of relief money for its construction.

Congress did not discuss it. Congress did not approve of the plan or authorize it. Here also we find that "the Engineers of the Bureau" decided that it ought to be changed to something else. Just how much effect the beginning of the work at Bonneville may have had in bringing about the change cannot be known, but it is a well-known fact that this matter of change was discussed for months after the contractors were at work.

¹ *Engineering News-Record*, August 1, 1935, page 143.

Mr. Keener goes on to say "The official order for this change of plan to the contractor was issued on June 5, 1935." This change was made ten and a half months after the original contract was let. It was a fundamental change in the character and objective of the project. From a "power yardstick" it became the "Grand Coulee Irrigation Project." From a plan that was going to cost \$63,000,000 it shifted over to a much grander scale. The Corps of Engineers' estimate for this high dam and irrigation project, on page 15 of House Document 103, is summarized below.

This estimate was available in 1933 at the time of the original allocation of \$63,000,000, and it was of course known that the change was going to involve vastly more expense.

In the paper of Senior Engineer Keener in *Engineering News-Record* he makes the following statement as to estimates of cost:

The dam and power plant have been estimated to cost some \$170,000,000. The irrigation works would cost about \$210,000 in addition. Economic studies led to the conclusion that power revenues would return the cost of the dam and power plant and half the cost of the irrigation works. (*Engi-*



Construction cost, dam, reservoir power house, and machinery	\$171,186,777
Carrying charges	33,296,676
Total investments for power	\$204,483,453
Navigation facilities	11,000,000
Total power and navigation	\$215,483,453
Irrigation costs, based on 4% money and settlement at rate of 50,000 acres per year	
Construction cost, pumping plant, and distribution works.	\$180,825,030
Carrying charges	40,896,850
Total irrigation	\$221,721,880
Total power, navigation, and irrigation	\$437,205,333

PUBLIC UTILITIES FORTNIGHTLY

neering News-Record, August 1, 1935, p. 143.)

In the same paper on the preceding page he gives a tabulation of "principal quantities, Grand Coulee dam" in which he gives the cost of the original low dam as \$63,000,000, and of the ultimate high dam as \$178,000,000, thus making more specific the generalized "some \$170,000,000."

On a folder given out by the official guide when the writer visited the plant the estimate was given as:

Cost of dam and power plant (ultimate design)	\$172,000,000
Estimated additional expenditure for reclamation	225,000,000
Total cost	\$397,000,000

It is not difficult to trace the relationship of these figures of \$170,000,000, \$172,000,000, or \$178,000,000 for the dam now being built with the \$172,186,777 estimate of the Corps of Engineers *before adding interest during construction and carrying charges up to the time when the sale of power makes the plant self-supporting.* These are actual costs which are being incurred now and will continue to accrue each year for decades to come.

How much is this plant going to cost? Only the Lord knows. We do know that the same kind of a preliminary estimate by the Corps of Engineers of the Army for Fort Peck dam and the Missouri river work has overrun the cost named in the Chief of Engineers' recommendation by 80 per cent, and that there have been contingent costs at Bonneville dam of more than 50 per cent of the estimate, the average excess cost on the two projects being more than 74 per cent.

In the next article in this series Dr. Riggs explains why, in his opinion, justification for the Grand Coulee irrigation project is lacking.

In the light of this experience, and of the unprecedented difficulties of the work, it is not unreasonable to expect a final cost of \$275,000,000 to \$300,000,000 on the dam and power plant *when all the cost is counted*, and of as much more on the irrigation works, plus the cost of the transmission system necessary to permit the power to go to market.

As thus far developed, there are two strong reasons for criticism of this project.

FIRST. It has not been discussed by the Congress, nor has it had congressional approval with the full understanding on the part of Senators and Congressmen as to what this project is going to cost. The writer is advised that some action was taken by the Congress in 1937 that is interpreted as congressional adoption of the project.

It certainly cannot be considered sound or safe national policy to permit an emergency body to approve a project which will cost \$63,000,000 to accomplish one purpose, and then to allow a Federal bureau to change the project to something wholly different which will cost from \$50,000,000 to \$100,000,000 more than the Panama canal.

SECOND. Estimates which omit interest during construction and carrying charges are not correct estimates. They are wrong, viciously misleading, and should be condemned in the plainest of language.

Grand Coulee cannot be discussed without discussing two matters—irrigation and power—which will be taken up in subsequent articles.



Wire and Wireless Communication

It cannot be too strongly emphasized that the recent release of the FCC special telephone investigation report is not the report of the commission but merely a *proposed* report drawn up by the special investigation staff. What the commission will finally do about the various recommendations before sending its own official report to Congress is very much up in the air, but it is almost certain that there will be substantial changes before the document reaches Congress with the FCC's endorsement. For that matter there may be even a majority and minority report by the commission.

The procedure of the commission in releasing the staff's draft of the report before the FCC itself acted upon the same may seem somewhat unusual, but due to a number of circumstances there was probably little else the commission could do. First of all, the report was long overdue and there was grumbling inside as well as outside of the commission that the FCC was "stalling" in an effort to get Congress out (or nearly out) of Washington before making the report public.

Whatever basis there may have been for this complaint, there was the added irritation of "leaks." Several persons outside of the FCC obtained access to the staff's report whilst it was still supposed to be a guarded secret. Pretty close versions of it actually appeared in print. This caused more irritation and criticism to the effect that the commission might be playing favorites. In a sense, therefore, the commission's hand was forced.

Actually, however, the commission is terribly busy. The report didn't even

reach the FCC until George Washington's birthday and with the telegraph rate hearings, and the radio investigation controversy (accompanied by recent fireworks in Congress), it was obvious to informed observers that, aside from extraneous motives, the FCC could scarcely do a good job of completing a study of a 1,100-page report reeking with highly controversial issues, before the current congressional session nears its end.

Faced with such clamor for publicity not only from without the commission but from some of its own members (who were somewhat exercised over the "leaks"), Chairman McNinch followed perhaps the safest course in authorizing publicity for the report as prepared by the staff. This naturally relieves the pressure on the commission from all sides and gives the members more time to examine the staff's findings. It is probable that the FCC may send its own version to Congress shortly before the session is concluded and probably too late for definite action, with the possible exception of the plea for additional funds to carry on the commission's investigation work. The latter has an outside chance of slipping under the wire by way of a deficiency appropriation.

As the staff report became public only a few hours before these lines go to press, a more careful analysis of this rather elaborate document will be deferred until the next issue of this department. Meantime, to repeat the word of caution, bear in mind that the FCC has not approved the staff findings, and that even after it does send its own revision of the report to Congress, we may

PUBLIC UTILITIES FORTNIGHTLY

confidently expect critical and independent action thereon from the legislature.

* * * *

THE first tangible product, or by-product, of the Federal Communications Commission's recent decision to investigate the radio broadcasting industry was the order of March 23rd requiring each licensee of a regular broadcasting station to file with the commission information as to its earnings and investment. The move can be traced directly to Commissioner T. A. M. Craven, who was so active in instigating the radio investigation.

As chief engineer of the FCC, Commissioner Craven had prepared certain recommendations on the "social and economic aspects of broadcasting" last July. And when the FCC sent out its questionnaire of March 23rd, Commissioner Craven linked the two items together in a special statement to the press in part as follows:

Commissioner Craven stated that his purpose in urging the commission to secure information with respect to the financial situation of broadcasting had no relation whatsoever to any consideration of the advisability of prescribing a uniform system of accounts for broadcast stations.

In addition to the requirement for each station to file information with the commission, the chief accountant was directed to secure from chain companies more comprehensive information as to their financial situation. This was done in order that the commission might have accurate data and a more complete understanding of the complex financial structure involved in the operation of broadcasting as a system in this country. Commissioner Craven stated that information of this character will be of substantial assistance and benefit to all concerned in the progressive development of broadcasting, particularly in the social and economic phases of the application of this relatively new invention to the service of the public.

It is noteworthy that Commissioner Craven took care to dissociate his questionnaire to the broadcasting companies from the proposal (now under commission consideration) to have the broadcasting companies submit to a uniform system of accounts, such as the FCC has already ordered into effect for interstate telephone companies. The radio ac-

counting proposal has the backing of FCC Chairman McNinch, but do not be surprised if Commissioner Craven is found opposed to uniform accounting for radio when that proposal is passed upon on its own merits.

Both of these items continue to make the radio industry fretful and fearful that both may contain a hidden wedge edge moving towards eventual regulation of broadcasting rates and profits by the commission. The recent action of Chairman of the House Rules Committee John J. O'Connor in demanding an independent congressional investigation of radio and, incidentally, of the FCC itself does not help quiet nerves of the broadcasting men.

COMMUNICATIONS attorneys differ as to whether the FCC could regulate either rates or profits of the broadcasters without additional legislative authority. It is pointed out by the broadcasters that their consuming "public," in the utility sense of the word, consists of a relatively small group of advertisers, and that the service is itself so highly competitive that the advertisers could and would very quickly register any dissatisfaction with the reasonableness or uniformity of rates by simply turning to a different publicity medium.

Just the same, it is clear enough that the FCC would like to have the opportunity of looking a little closer into the money-making mechanics of the broadcasting industry, especially in view of rumors that some units of the industry are making out very well indeed in comparison with the capital invested.

As far as the effect of a limited clientele upon the status of a public carrier (whether of intelligence or commodities) is concerned, the legal question recalls the position taken by the California Railroad Commission in *Re Hiron* (1928) P.U.R. 1929C, 279, where after a review of older authorities, the commission opinion stated in part:

It is obviously not a prerequisite that, to be classed as a common carrier, one must undertake to serve all persons without limitation of any kind . . . In other words, if the

WIRE AND WIRELESS COMMUNICATION

particular service rendered by a carrier is offered to all those members of the public who can use that particular service, the public is in fact served, and the business is affected with a public interest, though the actual number of persons served is limited.

Returns by broadcasters for the FCC questionnaire sent out March 23rd must be filed in Washington on or before April 25, 1938. The form goes into considerable detail in its queries as to revenue, expenses, network affiliation, and investment—all as of December 31, 1937.

One question in the FCC questionnaire which arrests attention by its implication is a double-barrelled query labeled C(1) and C(2), which goes as follows:

C(1). Does the licensee sell or exchange broadcasting time for considerations other than cash, such as advertising space in newspapers, periodicals, or other publications; space in buildings; use of equipment; occupancy of land or similar considerations? Answer,

(Yes or No)

C(2). If the answer is "yes," describe the considerations received and evaluate such time in terms of money on the basis of applicable rates and show the aggregate amount for the period covered by this report.

A STATEMENT in an opinion by the U. S. Court of Appeals of the District of Columbia was probably responsible for the recent significant action of the FCC in reversing its attitude and granting the application of Rev. Father Edward P. Graham to sell his small broadcasting station at Canton, O., (WHBC) to Brush-Moore Newspapers, Inc., which publishes dailies throughout the north-central Ohio area. The Federal court in another case had remarked that it knew of no law forbidding the granting of radio broadcast licenses to a newspaper publisher. Prior to that, however, the FCC had apparently, if unofficially, adopted such a policy.

In its tacit campaign against publishers-broadcasters, the FCC was doubtless smarting under criticism voiced not only on Capitol Hill but by administration leaders to the effect that the newspaper publishers, who have never been great favorites of the New Deal, are working their way into increased control of the

alternative medium of public intelligence—radio broadcasting.

It is no secret that many administration leaders, feeling that the press in the United States is predominantly politically hostile, have played the radio as a favorite for important addresses and announcements. Some newspaper men claim this has been true even of the President. At any rate, Senator Minton of Indiana, stalwart New Deal supporter, recently told his network listeners in a radio broadcast debate "that it is chiefly by means of the radio that the point of view of the administration in Washington on anything it is doing or proposes to do, is brought to you, since 98 per cent of all the metropolitan newspapers are opposed to the administration and do not hesitate to misrepresent it. You found that out in the last election. If you want to know the truth about things going on in Washington you won't find it in the metropolitan newspapers."

ACCORDING to *Editor & Publisher*, of approximately 700 regular broadcast stations not licensed in the United States, little more than 200 are owned or controlled by publishers. Recent victims of the FCC's antinewspaper policy were the following newspapers: *Milwaukee Journal*, seeking a second outlet in the city of its publication; *Washington Post*, endeavoring to add a fifth station in the District of Columbia and share in the rich local advertising contracts that have gone on the air; *St. Louis Post-Dispatch*, which sought additional facilities that would have put another station off the air; *Port Huron Times-Herald*, competing with a nonpublisher applicant, for a grant that would have concentrated both media in single ownership.

It is doubtful whether the FCC will completely surrender to the air-minded publishers. It may ask Congress for specific authority to restrict them, in view of the court's opinion of the prevailing law.

Last year Senator Wheeler of Montana announced his intention of seeking specific legislation to bar newspaper publishers from the radio broadcasting field,

PUBLIC UTILITIES FORTNIGHTLY

but no active legislative steps have been taken in that direction as yet. Perhaps the forthcoming FCC investigation of the radio industry will result in such a recommendation so that the commission's policy will be clearly understood and supported by indisputable statutory authority.

* * * *

HEARINGS began late last month in the House of Representatives on the so-called Lea bill (H.R. 9738) which would set up an Aviation Authority, for the purpose of regulating civil and air transport similar, in a general way, to the regulatory authority exercised over railroads by the Interstate Commerce Commission.

Because of the fact that there is substantial opposition to the Lea bill (a comparable bill, S. 3659, introduced by Senator McCarran of Nevada, is still sleeping soundly in the Senate Committee on Interstate Commerce at this writing), it is not very likely that this bill will become law at the current session. But the hearings are important because therein is the spade work accomplished which will either check or give impetus to the real progress of the bill at the next session.

The Department of Commerce and the ICC are both jealous of the bill; the former because it would take regulation of air transport from under its own wing, and the latter because it would like to add the regulation of air transport to its existing regulatory powers over rail and bus transportation. The U. S. Maritime Commission, which has regulatory authority over marine transport, has so far displayed no interest in the bill.

But communications companies have displayed plenty of interest in the bill. At the House hearings appeared representatives of the A. T. & T., Western Union, and Postal Telegraph. The portion of the bill that seems to be troubling these carriers of intelligence is §1108 which is as follows:

The Authority is empowered to require by regulation that persons owning or operating any bridge, causeway, transportation or transmission line, or any other structure on the civil airways or elsewhere, which the

Authority shall deem to be a hazard to aircraft operating in air commerce, shall maintain at their own expense such lights and other signals thereon as may be required in the public interest and the interest of those engaged in such commerce.

IT is not that the telephone and telegraph companies object to lighting up their lines within the immediate vicinity of regular airports, but they are afraid that the power that would be given the new Aviation Authority under this section is too broad. They fear it would allow the Authority to require them to light up every mile of their outlying lines which would be a tremendous expense.

Aviation experts are for the most part not particularly opposed to some modification of the Authority's power to require ground line lighting being put into the bill. They point out that modern commercial air lines are depending more and more on radio beams and less and less on ground signals, which means their planes would hardly be flying anywhere near ground wire lines except in case of emergency or near airports.

It is likely, therefore, that if the Lea bill should get to the point of passage at the next session, the wire companies will be able to get into the bill some restriction on the Authority's power to require ground line lights and signals.

* * * *

IT looks as if the telephone industry will get at least a minor rôle in all this FCC radio investigation after all. It is not to be in the big radio broadcasting investigation, but in the special ship-to-shore telephone service study being carried on under the auspices of FCC Member Brown. Commissioner Brown has taken a special interest in these ship-to-shore radio telephone experiments because they are being largely conducted for commercial marine purposes on Lake Erie from shore points located in Commissioner Brown's home state of Ohio.

In any event the FCC, on motion of Commissioner Craven, decided to expand the scope of the radio-telephone ship-to-shore service to cover the telephone end of the business.

Financial News and Comment

By OWEN ELY



Who's to Blame for Dearth of Financing?

JOHN W. Hanes, former senior partner in Charles D. Barney & Co. and now a member of the Securities and Exchange Commission, in a recent address warned investment bankers that unless they find a way to keep America's economic machine running, the Federal government may take this job away from them. Possibly some members of the banking fraternity were somewhat taken aback by the critical attitude of their former associate. Mr. Hanes admitted that "maybe the answer lies in changes in existing machinery, maybe it lies in the addition of new governmental or semi-governmental agencies to assist banking and distributing organizations to do the job which really is theirs. If you cannot reach these solutions, then the government, whatever the party in power, may have to impose them upon you, because a government cannot endure unless it can keep the national economy going."

Referring to the attitude of the SEC, Mr. Hanes said:

I know that we will not be adamant against changes in the existing laws and regulations if they are not in the public interest. We will not hide ourselves behind red tape and rejoice over your difficulties from the Olympian heights of bureaucracy. On the contrary, we recognize the possibilities of changes, amendments, and improvements, and we will work with you.

Mr. Hanes pointed out that of the \$9,000,000,000 securities registered with the SEC in the two years ended June 30, 1937, only 30 per cent was for new capital and "the commission's research has indicated that investment banking assistance was not available for many of these new money issues, and that there was a

rather surprising inability to sell any or a substantial part of such issues registered by firms in the promotional stage. At least a partial cause for the lack of participation in new financing was our unwillingness or inability to take risks." Mr. Hanes admitted that there were "a few outstanding cases where we did take real risks," but held that while some substantial losses were incurred "they were only an insignificant part of the total financing." He also agreed that government regulation and taxation might have something to do with the matter, but he concluded with the suggestion that the bankers must not be content with these alibis: "You cannot afford to sit and wait for changes . . . inaction may mean that you will write investment banking off the books."

MR. Hanes referred to the fact that Congress was already considering the possibility of legislative efforts to reopen the capital market. On March 8th Senator Pepper of Florida introduced a bill to establish a system of regional industrial banks, the capital for which would be subscribed by the Treasury, with additional stock open to public subscription. The banks could also issue debentures and these could be acquired by national banks. They would have authority to make loans "with or without collateral" and could also buy securities of almost any character.

It is doubtful whether the proposed bill, with its broad and highly elastic setup, will be enacted. It is possible that the powers and activities of the RFC may be increased and that some arrangement may be made to loan funds for capital purposes to small but deserving enterprises. It is inconceivable, however, that

PUBLIC UTILITIES FORTNIGHTLY

the government would attempt to take over bodily the functions of the investment bankers. Such a step would mean enormous concentration of economic power in Washington, and would put finance at the mercy of politics.

Doubtless investment bankers might well make a stronger effort to coöperate with the SEC, and offer constructive suggestions. However, if the SEC members are reading the financial gossip columns of leading New York newspapers they will know that they themselves are not above criticism. Thus *The New York Times* remarks:

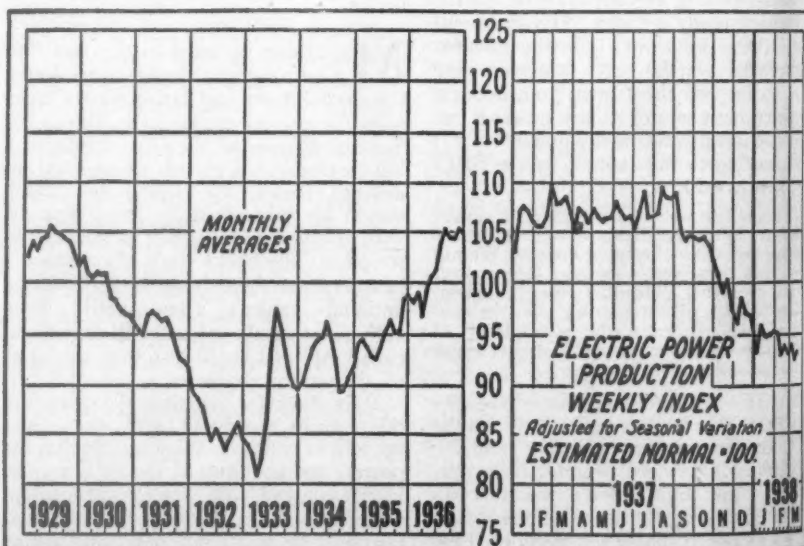
Perhaps one significant point escaped (Mr. Hanes), which may explain the decline in capital available for underwriting—and that is the restriction of underwriting "profits," as they are called with some exaggeration by most commentators. If Mr. Hanes' promise of SEC coöperation can be extended to a realistic viewpoint on this score, perhaps the machinery will function adequately in the future.

The *New York Sun* makes the following comment under the heading of "punitive legislation":

Securities and Exchange commissioners

have expressed on many occasions their deep concern over the lack of capital market activity, but in actual practice they seem to be doing their best to halt entirely what little business there is. The questionnaire on dealings in the new issue of Pure Oil preferred stock was extended . . . to include not only the syndicate members, but also many dealers outside the group. Whether the names were selected at random or were taken from lists supplied by syndicate members under compulsion is not clear at the end. Investment bankers hold that it is perfectly obvious, however, that the form and extent of this inquiry tend to be punitive in that distribution of the stock is being made excessively difficult. The need for supplying names of customers is driving many potential buyers to cover, for no investor relishes the prospect of filling out long forms. Rightly or wrongly, some of the prospects fear that a purchase of the stock might result eventually in being called to Washington to testify at some hearing or other. Dealers who received the questionnaire . . . groaned as they contemplated the examination of records for six months back, at great expense, for reasons that the SEC may understand, but has not yet made clear.

A MORE complete rejoinder is that of Dr. Melchior Palyi, University of Chicago economist, who addressed the same banking group as Mr. Hanes:



From *The New York Times*

APR. 14, 1938

482

FINANCIAL NEWS AND COMMENT

The problems of investment banking are those of demand, supply, and bringing the two together, and not with the psychology or the education of the investment bankers. Supply is not such a difficulty. Money is plentiful as never before. If any government ever made money cheap and plentiful, this government did. The question then becomes one of demand.

And why not demand? The reason is in governmental policies that interfere with demand and in policies which result in a cutting down of profits that comes almost to the same thing. It is a broad trend and one that affects vitally the present and future status of the capital market.

A cheap money policy has diminished the margin of profit available to the investment banker. When the interest rate is low, say a 4 per cent basis, the profit margin is necessarily lower than in a time of higher interest rates. Yet neither expenses of the investment banker, nor his risks, are lower in proportion—or lower at all.

A cheap money situation, in the long run, compels the government to maintain cheap money . . . The present rates are the result not only of pegging of government bonds by the Federal Reserve but also other government influences so numerous that they would make a long list.

All sorts of measures are undertaken to keep down the interest rate, reduce rates on mortgages, etc., all for one purpose—to push government bonds down the throats of the institutions which are today the principal security buyers.

More than half the capital market is no longer in contact with the investment banker because its needs have already been filled with government securities.

Rating policies, given emphasis by bank examiners and others, tend to narrow the investment field and to select a small number of security issues as the sole securities that can qualify under the Federal Reserve Board's prescriptions on loans from the Federal Reserve system. The net result is that government bonds and a few more particularly high-class issues are the only ones readily marketable.

is approved, additional capital surplus can be set up amounting to nearly \$150,000,000. Corresponding changes on the asset side of the company's balance sheet will involve writing down of the investment in subsidiaries and other items.

While the "de-splitting" of Cities Service appears to be a sensible course, the market effect has unfortunately proved somewhat adverse. A low-priced stock (around 1-2) frequently sells at a much higher multiple of earnings than when it is in the price range 10-20, for the reason that many small investors prefer to buy round lots of low-priced "bargain" stocks rather than odd lots of the higher priced issues. The old stock in its 1929 heyday sold in the 60's—which would be equivalent to over 600 on the new basis.

Diversity of Monthly Earnings Reports

DESPITE gradual depression inroads, our table of interim earnings reports still shows a good majority of plus signs over minus signs. However, the decline will doubtless prove more rapid from now on, as the admixture of bad months in the twelve months' periods increases. Commonwealth & Southern, one of the few systems to issue figures for single months, reports a decline of 35 per cent in net income for February.

While railroad reports do not always furnish stockholders a complete financial picture, the monthly figures are at least on a uniform basis and released as promptly as possible. Some leading utility systems might well improve their showing in this respect. The accompanying tabulation of earnings reports includes statements for periods ending as follows:

Seven end with September
One ends with October
Seven end with November
Eighteen end with December
Three end with January
Two end with February

One company was dropped from the list because its latest interim report appeared to be that for last June.

Cities Service "De-splits" Stock One-for-Ten

CITIES Service Company has announced that it will ask stockholders, at the annual meeting April 26th, for authority to reduce the total amount of outstanding common shares from 37,555,670 to 3,745,567, or a one-for-ten exchange into new stock, which will have a par value of \$10 a share. If the exchange

PUBLIC UTILITIES FORTNIGHTLY INTERIM EARNINGS STATEMENTS

Electric and Gas	No. of	End	System Earnings per Share (a)			
	Months	of	Last	Previous	Per Cent	Per Cent
	Included	Period	Period	Period	Increase	Decrease
American Gas & Electric	12	Nov. 30 (b)	\$2.56	\$2.23	14%	..
American Power & Light (Pfd.) ..	12	Nov. 30	6.36	5.92	7	..
American Water Works	12	Sept. 30 (c)	1.38	1.50	..	8%
Boston Edison	12	Dec. 31	8.72	8.38	4	..
Columbia Gas & Electric	12	Sept. 30 (c)	0.57	0.47	21	..
Commonwealth Edison	12	Nov. 30 (b)	2.05	1.42	45	..
Commonwealth & Southern (Pfd.) ..	12	Feb. 28 (b)	9.38	9.50	..	1
Consolidated Edison, N. Y.	12	Dec. 31	2.17	2.34	..	7
Consolidated Gas of Baltimore	12	Dec. 31	4.63	4.52	2	..
Detroit Edison	12	Feb. 28	7.04	8.41	..	17
Electric Power & Lt. (1st Pfd.)	12	Nov. 30	12.35	10.29	20	..
Engineers Public Service Co.	12	Jan. 31	.78	.36	116	..
Federal Light & Traction	12	Sept. 30	2.26(f)	2.56	..	12
Inter. Hydro-Electric (Pfd.)	12	Sept. 30 (c)	18.46	3.55	420	..
Long Island Lighting (Pfd.)	12	Dec. 31	4.82	8.19	..	41
Middle West Corp.	9	Sept. 30 (c)	0.40	0.39	2	..
National Power & Light	12	Nov. 30	1.33	1.00	33	..
Niagara Hudson Power	12	Dec. 31	0.84	0.81	4	..
North American Co.	12	Dec. 31	1.95	1.74	12	..
Pacific Gas & Electric	12	Oct. 31	2.82	(g)
Public Service Corp. of N. J.	12	Jan. 31 (b)	2.60	2.71	..	4
Southern California Edison	12	Dec. 31	2.18	2.42	..	10
Standard Gas & Elec. (Pr.Pfd.)	12	Jan. 31 (b)	6.62	7.77	..	15
United Gas Improvement (i)	12	Dec. 31 (c)	1.05	1.04	1	..
United Light & Power (Pfd.)	12	Nov. 30	8.36	7.92	5	..
Gas Companies						
American Light & Traction	12	Dec. 31	1.75	1.68	4	..
Brooklyn Union Gas	12	Dec. 31	2.57	3.02	..	15
Lone Star Gas	12	Dec. 31	1.14	1.02	12	..
Pacific Lighting	12	Dec. 31	4.10	3.88	6	..
Peoples Gas Light & Coke	12	Dec. 31	3.65	3.21	14	..
United Gas Corp. (1st Pfd.)	12	Nov. 30 (b)	23.99	25.66	..	7
Telephone and Telegraph						
American Tel. & Tel. (d)	12	Dec. 31 (c)	9.62	9.36	3	..
General Telephone	12	Sept. 30 (c)	1.61	1.52	6	..
Western Union Telegraph	12	Dec. 31	3.18	6.89	..	54
Traction						
Greyhound Corp.	12	Dec. 31	1.77	1.59	11	..
Twin City Rapid Transit	12	Dec. 31	1.14(h)	2.00	..	43
Systems outside U. S.						
American & Foreign Power (Pfd.) ..	12	Sept. 30 (c)	7.70	4.51	70	..
International Tel. & Tel. (e)	12	Dec. 31	1.60	.63	155	..

- (a) On common stock, unless otherwise indicated following name of company; Federal surtax deducted.
 (b) Report also published for month ending same period.
 (c) Report also published for quarter ending same period.
 (d) Parent company only. The consolidated statement for twelve months ended December 31st showed \$10.24, against \$9.54 last year.
 (e) Excludes Spanish subsidiaries and Postal Tel. & Tel. Co.
 (f) Before surtax \$2.72.
 (g) Comparative figures for 1936 not stated. For the twelve months ended September 30th there was a gain of 14 per cent.
 (h) Before surtax \$1.45.
 (i) Parent company only.

FINANCIAL NEWS AND COMMENT

Traction Troubles

MAYOR LaGuardia has failed in his request for action at Albany on the New York city traction issue. He had not only asked for the removal of his transit commission, but also sent to the legislature a bill seeking power to condemn and tear down elevated lines at "bargain prices."

While adjournment of the legislature temporarily ended this threat, the Manhattan Railway Company and the Interborough remain at odds regarding the legal status of the elevated lines. Counsel Charles Franklin of the Manhattan Company has demanded that the lines be returned by the IRT because of alleged failure to live up to the terms of the lease. The demand, which was later withdrawn, arose from the city's threat to advertise for a sale the tax liens against the Manhattan properties, on which some \$3,800,000 back taxes are due. Judge Patterson has asked the city to defer the tax sale for several months, to permit further investigation of the lease.

Separation of the two properties would mean that services from the Bronx and Queens to Manhattan would be disrupted, resulting in a higher fare.

Amendment to New Tax Bill Approved

FINANCIAL circles followed with interest the action of the Senate Finance Committee in approving an amendment to the new tax bill suggested by SEC Chairman Douglas. This amendment, which would exempt from the capital gains tax securities transferred or forced into sale by reason of the operation of §11 ("death sentence") of the Holding Company Act, was viewed as further evidence of the SEC's intention to make reorganization of holding companies under §11 as easy as possible and with the least disturbance to sound investment structures.

In reaching its decision on mutual investment companies, the committee sought the advice of Chairman Douglas

because the SEC had just completed a study of that type of financial agency. He told the members that companies of this type were not important at this time and had a total capitalization of about \$400,000,000.

Corporate News

PROGRESS is reported in conferences between President Sawyer of National Power & Light (Electric Bond and Share subsidiary) and TVA Director David E. Lilienthal, regarding possible purchase of the Tennessee Public Service properties by the city of Knoxville.

Two protective committees for bondholders of Postal Telegraph & Cable Corporation advocate merger with Western Union. Robert Lehman, chairman of one committee, stated:

Such consolidation would safeguard the interests of labor, permit elimination of waste resulting from duplication of facilities, and enable the telegraph industry to compete for its share of the communication business with rival methods of communication. In order to effect this solution, congressional action is required, but, despite recommendations for legislation which have been made by the FCC, no legislation has as yet been forthcoming.

Consolidated Edison has now filed with the Securities and Exchange Commission a registration statement covering \$60,000,000 debenture 3½s of 1953. The offering date will probably be April 14th, unless the issue is delayed beyond the usual 20-day period.

San Francisco authorities have been advised by Secretary of the Interior Ickes to proceed with caution in the matter of granting an additional franchise to the Pacific Gas and Electric Co.

Flood damage to Southern California Edison Company has been estimated not to exceed \$400,000.

Mayor Wilson of Philadelphia has stated that he would ask for an investigation by the courts or Congress regarding the \$3,000,000 award by the Federal court of appeals to underlying com-

PUBLIC UTILITIES FORTNIGHTLY

panies of the Philadelphia traction system.

Progress toward completion of the reorganization plan of the Birmingham Gas Company is reported. About \$6,800,000 principal amount of the secured debentures of American Gas & Power Company, the parent company, have consented to the amendment of the debenture agreement proposed under the plan. This is nearly 98 per cent of the consents required from these holders. The consummation of the plan is now dependent on the action of stock and noteholders of Birmingham Gas who have not yet deposited under the plan. Of the outstanding \$6 first preferred, about 71 per cent of the shares have been deposited to date while of the \$600,000 of outstanding 6 per cent notes, about 61 per cent has been deposited.

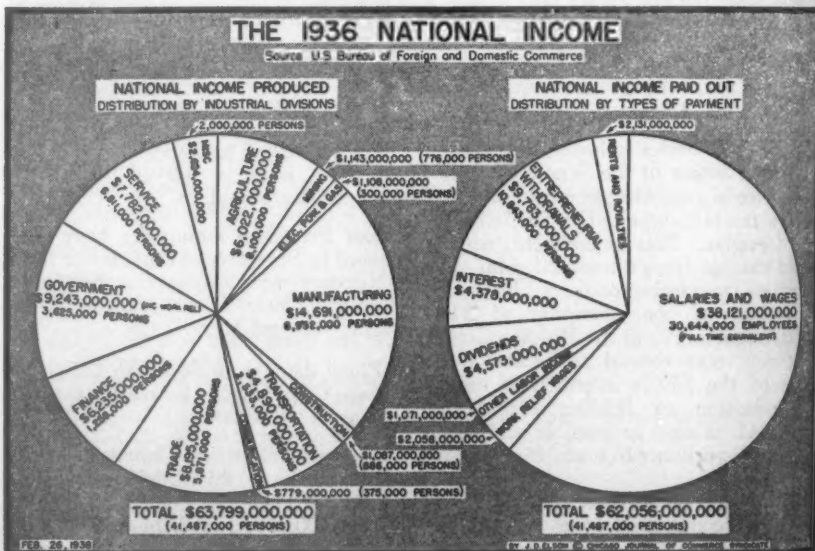
The SEC has approved the application of American Light & Traction Company to sell \$3,270,000 bonds of its wholly owned subsidiary, San Antonio Public Service Company. The bonds will be sold to institutional investors, who have re-

quested various changes in the mortgage indenture.

Chairman Floyd L. Carlisle of Consolidated Edison Company stated at the recent stockholders' meeting that system earnings in the first quarter were running ahead of last year. He added that earnings after the first quarter could be more fairly compared on a year-to-year basis, since currently reduced rates went into effect in the spring of 1937. The company contemplates spending \$45,000,000 this year for additions and betterments.

The order of the Pennsylvania commission restraining Edison Light & Power Co., from making debt or dividend payments (pending outcome of the rate case) has been challenged in the courts by the company.

Due to political pressure by Governor Murphy of Michigan, the utility commission of that state plans to investigate rates charged by Michigan Bell Telephone Company, Consumers Power Company, and Detroit City Gas Company.





What Others Think

The Canadian Parliament's "White Paper" on St. Lawrence-Niagara Correspondence



ON February 28th in the House of Commons of the Dominion Parliament at Ottawa, Prime Minister MacKenzie King made public a document which should prove of lasting interest and importance to all those concerned with the proposed St. Lawrence seaway and power project and its incidental developments. This document, officially termed a "white paper," embraces all the Dominion Government's correspondence in connection with the St. Lawrence Deep Waterway Treaty of 1932, the Niagara convention of 1929, and Ogoki river and Kenogami river projects.

The tabling of this document was designed to clarify the differences in opinion and policy existing between Dominion Prime Minister King and Premier Mitchell Hepburn of Ontario, which have more recently arisen over the proposal of Premier Hepburn to have the Ontario Hydro Commission purchase power generated by private companies in Quebec and export the same (at a profit) to privately owned distributing utilities in the state of New York.

The "white paper" was divided into three separate divisions and an extensive appendix of official documents, including the waterway treaty. Part I embraced the correspondence between Ottawa (the Dominion) and Washington, D. C.; Part II covered the communications between Toronto (Ontario Provincial government) and Ottawa, including correspondence with the Ontario Hydro-Electric Commission; Part III included correspondence relating specifically to the issue of exporting Canadian-produced power.

According to a summary of the "white paper" which was published in *The Globe and Mail*, of Toronto, Ontario, the Canadian-United States correspond-

ence opened September 2, 1930, with a letter from the then United States Minister to Canada, Hanford MacNider, to the then Prime Minister, R. B. Bennett, referring to previous correspondence on the proposed St. Lawrence seaway and power project.

STATING the President of the United States was ready to proceed with the proposed development at an early date, Mr. MacNider asked if the Canadian government "now finds itself in a position to appoint commissioners to discuss jointly with commissioners of the United States the details of the seaway and to formulate a treaty appropriate to the purpose."

Mr. Bennett replied September 10, 1930, stating that Parliament was then in session and that he would be going to the London Imperial Conference September 30th, but he would go into the matter immediately on his return from London and again communicate with the United States Minister.

The next letter from Mr. Bennett to Mr. MacNider was dated a year later, September 12, 1931. He referred to discussions he had with President Hoover in Washington the previous March and to detailed study given the subject since that time.

Mr. Bennett's letter appears in part as follows:

I have been of the opinion that, at least in the initial stages of negotiations, progress could more definitely be assured by direct and verbal exchange of views between the two governments than by any other medium, and I am gratified to learn that my opinion, as presented by the Canadian Minister, has received concurrence of your government.

It is my belief that in the near future the government will be in a position to discuss concrete proposals with your government for the completion of the St. Lawrence water-

PUBLIC UTILITIES FORTNIGHTLY

ways project. Steps have already been taken to reconstitute the Canadian section of the Joint Board of Engineers.

THE next letters in the return were dated in Washington on January 13, 1933, about six months after the St. Lawrence Deep Waterway Treaty had been signed.

They were an exchange between United States Secretary of State Henry L. Stimson and Canadian Minister W. D. Herridge designed to make it clear the treaty would not permit continuance of the diversion for the private power installation then using the Massena (N.Y.) canal and the Grass river. The letters showed both governments were in agreement the treaty did not permit the continuance of the diversion and declared accordingly.

The next letter was dated Ottawa, March 4, 1935, from United States Minister Warren D. Robbins to the Secretary of State for External Affairs (Prime Minister Bennett). It dealt entirely with a United States proposal for an exchange of notes on the joint program of remedial works to preserve the beauty of Niagara Falls.

He suggested that this could be done with a clear understanding by both parties that no permanent allocation of water rights would be effected and that no additional use of water by power companies, public or private, on either side of the falls would be authorized.

NEXT in the series is a memorandum from the United States Legation at Ottawa to the Secretary of State for External Affairs (Prime Minister King), dated February 26, 1936, as follows:

The President has given a great deal of thought to the St. Lawrence waterway project, and the most practicable means of bringing about the ratification of the treaty between the United States and Canada looking to the inauguration of actual construction on this development. He sent a strong message to the Senate at the first regular session after he assumed office, urging immediate approval of the treaty, and made a personal appeal to a number of the Senators in an effort to bring about approval of the treaty by the Senate.

Notwithstanding these efforts, the treaty did not obtain the necessary two-thirds majority of the Senate, and thus failed of approval. The present concern of the American government is to endeavor to devise a means whereby a treaty looking to this development can be brought into effect.

During the Senate hearings of 1931, dealing with the convention and protocol for the preservation and improvement of Niagara Falls, which was signed at Ottawa on January 2, 1929, and which has been approved by both houses of the Canadian Parliament, it became manifest that the members of the Foreign Relations Committee were in hearty accord with the proposal for the construction of the compensating works to preserve the beauty of the falls.

The committee apparently felt, however, that the convention conferred unusual and unwarranted advantages upon a private American power company, which under the convention would receive the benefits of the additional diversion of the American side in return for defraying the American share of the cost of the proposed compensating works. On that account it was felt that there appeared to be no likelihood that the convention of January 2, 1929, would be approved by the Senate.

The President feels that there would be obvious advantages to both the United States and the Canadian government in negotiating a new treaty to deal with the Great Lakes-St. Lawrence basin as a whole, and the beauty problems at Niagara Falls, and would appreciate having, at the earliest possible moment, the views of the Prime Minister on this whole question.

If the Prime Minister is agreeable to the suggested procedure, it is the President's intention to withdraw at once from the Senate the St. Lawrence Waterway Treaty of 1929 and the Niagara Falls convention of 1929. The American government would be prepared to institute negotiations looking to a new treaty at once.

THE next, and last letter in the Canada-United States series is from the Canadian Minister to the United States in Washington to the United States Secretary of State and is dated January 27, 1938. This letter was signed by W. A. Riddell, Chargé d'Affaires, for the Canadian Minister, and was as follows:

I have the honor to state that I have been instructed by the Canadian government to bring to your attention that they have under consideration and are prepared to approve an application pursuant to the Navigable Waters Protection Act from the Hydro-Electric Power Commission of Ontario, for which the government of the

WHAT OTHERS THINK



The Pittsburgh Press

NOW WE'LL SEE WHAT WE'LL SEE!

Province of Ontario asks favorable consideration and which seeks the approval of certain works designed to provide for the diversion of water from the Kenogami river, a tributary of the Albany river, via Long Lake, all in the Province of Ontario, into Lake Superior.

The proposed diversion, it will be seen, would be one into the Great Lakes-St. Lawrence water system from another watershed lying wholly within the borders of Canada. It is calculated that the average diversion would amount to 1,200 cubic feet a second of water.

The project, if carried out, would entail certain material advantages. It would, in practical effect, improve the conditions affecting the navigation throughout the Great Lakes-St. Lawrence system and reduce to some extent the expenditures on the compensating works which for various reasons have to be carried out and maintained at certain points in the system—an advantage that would be shared by the United States in common with Canada.

It would also make available more water along that system for the production of electrical power. As regards this aspect, the

PUBLIC UTILITIES FORTNIGHTLY

Canadian government would expect that the proposed diversion, if carried out, would be subject to the principle that the waters diverted from a national watershed into the international waterways should be regarded for power uses as national waters exclusively. This is a principle which, it will be recalled, was recognized in the negotiation of the St. Lawrence Deep Waterway Treaty in 1932.

The Canadian government, therefore, wishes to inquire whether the United States government would be disposed to enter into an agreement to the effect that, notwithstanding the provisions of Articles V and VIII of the Boundary Waters Treaty of 1909 regarding the division of the uses of boundary waters, in the event of the proposed diversion being made into Lake Superior from the Kenogami river via Long Lake, the exclusive rights to the use of waters equivalent in quantity to any waters so diverted shall be vested in Canada and the quantity of waters so diverted shall be at all times available to Canada for use for power below the point of diversion so long as it constitutes a part of boundary waters.

It is hoped the government of the United States will be disposed to give this proposal their favorable and early consideration.

THE series of letters between the Canadian government and the government and the Hydro-Electric Power Commission of Ontario opens February 9, 1925, with a letter from Premier G. Howard Ferguson of Ontario to Hon. Charles Stewart, Minister of the Interior at Ottawa.

Mr. Ferguson wrote that the Ontario government was considering water diversion from the Albany river in the belief that this would contribute 3,000 "second feet" to the flow of the international waters.

He suggested that this water would be added to the international flow by the Province of Ontario and should be "looked upon as our water all down the boundary, and we should be given the exclusive right to use this contribution without interfering with our rights in the international waters proper."

Premier Ferguson requested assurance that "In any question that may arise for consideration at the hands of your government this water will not be considered the subject of question or division, but will be treated as being exclusively the property of the Province aside from any

claim we may have for division of other waters."

Mr. Stewart replied May 4, 1925, in part, as follows:

On the general principle involved, my colleagues and myself are of the opinion that if we in Canada are prepared to authorize the abstraction of this water from the Albany system and to forego the navigation and power advantages which are inherent in this flow to the Albany system, we would undoubtedly be justified in claiming that this water, when added to the Great Lakes system, should still be considered in so far as practicable as Canadian water.

I am furthermore prepared to assure you that this government will maintain this viewpoint in any questions which may come before it having to do with the consideration of the Great Lakes and St. Lawrence system, and particularly with respect to questions of apportionment of water as between Canada and the United States.

You will understand this assurance has to do with the general principle involved, and must not be considered as an approval of the detailed project. The project itself will necessarily have to be submitted to this government for consideration under the Navigable Waters Protection Act before any official approval can be given.

On May 14, 1925, Premier Ferguson wrote Mr. Stewart stating that he was having some further inquiry made with respect to the Albany diversion, and that he would communicate with Minister of the Interior at a later date.

NEXT letter in this series was from Mr. Stewart to Premier Ferguson and dated January 3, 1929, and accompanied a copy of the convention and protocol signed at Ottawa the previous day between Canada and the United States providing for preservation of the scenic beauty at Niagara Falls and Rapids. On the same day Mr. Stewart also wrote C. A. Magrath, chairman of the Ontario Hydro-Electric Power Commission, enclosing a copy of the Niagara convention.

Mr. Ferguson replied January 9th and Mr. Magrath January 10th, acknowledging Mr. Stewart's letter and expressing gratification at the conclusion of the Niagara Falls convention.

There was no further correspondence in this series until August 13, 1934, when Premier Hepburn of Ontario wrote

WHAT OTHERS THINK

Prime Minister Bennett requesting that he bring the attention of the government of the United States to the desire of the Ontario Hydro-Electric Power Commission to coöperate in furthering the early development of additional power from the Niagara river.

Mr. Hepburn's letter contained a resolution adopted by the newly constituted Hydro Commission detailing its plans for developing power at Niagara Falls.

Mr. Bennett replied August 29, 1934, assuring Mr. Hepburn that "the efforts of the Hydro-Electric Power Commission of Ontario toward securing additional power from the Niagara river, having due regard for the full protection of the scenic values of the falls and rapids, will receive the full coöperation of the government of Canada."

"As you intimate, this objective is one which can only be obtained in collaboration with the government of the United States," Mr. Bennett wrote.

Mr. Bennett gave a lengthy review of developments which had already taken place with regard to the international phases of the power situation and stated that he was arranging to have these developments discussed more fully at a conference between J. T. Johnston, director of the Dominion Waterpower Bureau, and T. Stewart Lyon, Ontario Hydro Commission chairman.

That conference was held September 14, 1934, but the next letter shown in the series was dated March 30, 1935, from Mr. Hepburn to Mr. Bennett. Mr. Hepburn referred to a proposal of the United States President that in negotiating an agreement with Canada for joint action for prevention of further erosion of Niagara Falls there should be no permanent allocation of water rights or any additional use of water by power companies on either side of the Niagara river.

Mr. Hepburn wrote:

In view of the adverse effect of such an agreement on the plans of the Hydro-Electric Power Commission for the development of further power from the Niagara river, I most strongly urge against the negotiation and ratification of a treaty along the lines

that we understand are now proposed by the President of the United States.

THE Ontario Premier urged the Dominion government not to consent to the Niagara convention and protocol of 1929 unless it contained clauses providing for the additional use of water.

The next communication, dated November 16, 1935, from Mr. Lyon to Dr. O. D. Skelton, under-Secretary of State for External Affairs, introduced the project known as "the Ogoki Diversion," which proposed to make use of the water now flowing into Hudson Bay from the Ogoki, a tributary of the Albany river.

Mr. Lyon observed that the Mackenzie King government favored this diversion in 1925 and asked "whether Mr. King's present administration takes the same view of the question."

Dr. Skelton replied to this communication February 15, 1936, and stated that the Ogoki question would be settled definitely and satisfactorily if the St. Lawrence Deep Waterway Treaty was ratified by both countries. "The alternative of seeking action on the Ogoki alone would not seem to have any prospect of success," Dr. Skelton wrote.

The next letter is from Prime Minister Mackenzie King to Premier Hepburn, January 8, 1937, as follows:

My colleagues and I have been giving consideration to the position of the St. Lawrence Deep Waterway Treaty of 1932 and the Niagara convention of 1929, and have recently had some discussions on both questions with representatives of the United States government.

You of course recall that the Niagara convention and protocol, based upon the report of the Special International Niagara Board and signed at Ottawa in 1929, were approved by the Canadian Parliament in that year, but were reported against in 1931 by the Foreign Relations Committee of the United States Senate; and also that the Deep Waterway Treaty of 1932 failed in 1934 to secure the requisite two-thirds majority in the United States Senate. The President of the United States is now considering what action he should recommend during the present session of Congress, and in this connection desires to have some indication of the attitude of the Canadian government.

From our discussions it appears that the United States Federal administration is defi-

PUBLIC UTILITIES FORTNIGHTLY

nately interested in the development of the opportunities of the St. Lawrence-Great Lakes system for transportation and power. They believe that that whole system should be considered as a unit, and plans made by the governments concerned for the coordinated and orderly development of its transport and power possibilities. They recognize that it may not be possible to put in hand all the developments simultaneously, but consider that a general plan should be kept in view, of which the several parts could be put into effect as opportunity permitted.

It is further quite clear that they are much more interested in the St. Lawrence than in the Niagara treaty. The St. Lawrence Deep Waterway would provide, along with the new Welland canal, the improved transportation in which so many of the Western and Lake states are interested, while as regards power, development of the international section of the St. Lawrence is free from the difficulties that arise at Niagara because of the objection on the part of the United States authorities to strengthening directly or indirectly the position of the private companies which now own and operate all the plants on the United States side of the Niagara river.

It is possible that a way might be found for further development of power on the United States side of the Niagara consistent with the principle of public ownership, but in any case it is quite clear that it will not be possible to make any agreement with the United States with regard to Niagara without asking an agreement on the St. Lawrence as well. Provision for the exclusive right for power purposes to any water diverted to the Great Lakes system from Ogoki is included in the present St. Lawrence treaty, which also provides a definitive settlement of the Chicago diversion question.

The suggestion has been made that the St. Lawrence development might be agreed upon, with a proviso that the erection of the power houses and the instalment of machinery on the Canadian side might be postponed for an agreed period after the completion of the navigation works and power substructures (which in itself, I understand, would require six or seven years after the ratification of the treaty). Whether or not in that case it would be possible to provide an early utilization of additional water by Ontario at Niagara in accordance with the provisions of the Niagara treaty, but with some variation in the present protocol (which provides for intervention of the Niagara Falls Power Company), is a further question that would require consideration.

This whole question is one in which the Province of Ontario is vitally interested. I should be glad to discuss the question with you or to arrange for a discussion by technical officers with the Hydro-Electric Com-

mission. In the meantime, I should like to have an indication of your views to enable me to reply to the inquiries from the United States. In view of our discussions with the United States, I have marked this letter confidential.

MR. Hepburn made the following reply:

In reply to your letter of January 8th, with reference to the proposed St. Lawrence deep waterway, I have on various occasions made my position very clear in this regard. I do not believe the project can be justified on economic grounds, inasmuch as we are neither in need of a new avenue of transportation nor additional electric power.

With the proposed air service across Canada, even further losses will have to be sustained by the railways, whose financial positions now are not enviable.

Should our efforts to protect the Hydro consumers of Ontario against the power interests of Quebec prove futile, it would mean we would have to immediately pay for \$8,500,000 worth of unsalable power, which in my opinion and in the opinion of technical experts, would take care of our ordinary increase in power consumption over a period of many years.

The whole St. Lawrence project, to my mind, looks like another beautiful dream comparable to the Hudson Bay Railway and the Temiskaming and Northern Ontario Railway extension to James Bay. We must not overlook the fact that the canal would be frozen over a good many months of the year, and most of the exporters' contracts with the transportation companies are on a yearly basis.

I might also add that the Province of Ontario is interested with respect to not only our trans-Canada highway, a large section of which is yet to be completed, but also with regard to our publicly owned T. and N. O. Railway, which would suffer a loss in tonnage and revenue.

THE next six letters in the series were those made public by Premier Hepburn last December following his controversy with Prime Minister Mackenzie King over the export of power. They dealt with proposals to divert water from the Kenogami river to Lake Superior and from the Ogoki river to Lake Nipigon and thence to Lake Superior.

On February 14th, Mr. Hepburn wrote Mr. Mackenzie King expressing his disappointment that the government would not endeavor to get United States

WHAT OTHERS THINK



Washington Daily News

IS THERE A LITTLE DUTCH BOY IN THE HOUSE?

approval of the Kenogami and Ogoki diversion as separate from the waterways project.

"I must confess that it came as a distinct shock," Mr. Hepburn wrote, "as the proposed diversion of Long Lac waters was the first step contemplated with respect to further power development in the Niagara district. Later on it is hoped to proceed with the Ogoki diversion."

Mr. Hepburn outlined the plans his government had formulated of developing timber operations in the Long Lac district.

"I am hoping," he concluded, "that you will reconsider the position of your government and endeavor on behalf of the Province of Ontario to separate the general scheme of the St. Lawrence waterway from the problem of diverting the waters above Niagara."

PUBLIC UTILITIES FORTNIGHTLY

Mr. Mackenzie King replied in part:

I am unable to understand your statement that my letter came to you as "a distinct shock." The international complications surrounding this problem of arranging to secure for Canada the benefits of such diverted waters were well known to the government and power authorities of Ontario long ago. The problem was first raised by the Ontario government in 1925, and discussions followed.

It was dealt with in a well-known provision of the unratified St. Lawrence Deep Waterway Treaty of 1932, which had been fully discussed with Ontario. In November, 1935, in connection with the Ogoki river diversion project, exactly the same problem was raised by the Ontario Power Commission with the Department of External Affairs, and in February, 1936, the department replied, reviewing the position and pointing out the international complications attending the matter.

The fact that the United States government was strongly emphasizing the desirability of treating as a whole all the particular questions affecting the Great-Lakes-Niagara-St. Lawrence system had been made known in my letter to you of January 8, 1937, and which had been more fully explained at conferences with representatives of your government and of the Power Commission held in Ottawa on January 14 and February 24, 1937.

Your letter, after indicating the benefits of the Kenogami diversion project to the Province, goes on to suggest that, because of the attitude of our government, the works under way have had to be partially suspended or cut down. As the works were started before the necessary consent under the Navigable Waters Protection Act had been assured, or the discussions concluded as to the possibility of an arrangement with the United States, it is apparent the responsibility for the situation which has arisen does not rest on the Canadian government.

The Ontario Hydro-Electric Power Commission's plans and application, under the act, for the approval of the proposed dam on the Kenogami river were sent to the Department of Public Works on July 31, 1937. In the first part of August the department's district engineer inspected the site of the works, and on August 30th the commission was advised that additional plans, covering the works for the proposed diversion southerly from Long Lake, would be required before the department could deal with the application.

These additional plans were forwarded by the commission on December 10, 1937, and on January 26, 1938, the department advised the commission of the usual conditions under which the department would be prepared to recommend the approval of the construction of the proposed dam.

In conclusion you express the hope that the Canadian government will reconsider the position, and, on behalf of Ontario, will endeavor, in the international negotiations, to separate the general scheme of the St. Lawrence waterways from the problem of diverting the waters above Niagara. In this connection, I have observed public statements intimating that our government has been trying to impose a general scheme upon Ontario against her will.

None of the correspondence or consultations with Ontario representatives affords any foundation for such suggestions. At no time has the Canadian government declined to ask the United States government if they could deal particularly with this problem of retaining for Canada the benefits of waters that might be diverted into the Great Lakes; nor has there been any effort to impose anything upon Ontario. What has been done has been to bring to the attention of the Ontario authorities the position of the United States government from time to time as it has become known to us; and, in view of the practical importance of all these matters to Ontario, we have invited discussions with your representatives.

This we were naturally bound to do, in order to find out what it might be practicable to say in reply. In so doing the Canadian government was merely making known the position taken by the United States, whose coöperation was necessary to the settlement of any international water development. At no time has the government of Canada itself taken the position that the St. Lawrence waterway, Niagara, and other boundary waters questions must be settled as a whole, or that it was not prepared to deal with the projects for diversions into the Great Lakes separately from the St. Lawrence project.

As shown to the Ontario authorities, from time to time, the situation has been that extensive efforts were made to deal separately with the St. Lawrence and other matters, and with Niagara, but the two treaties that were negotiated failed to secure the consent of the United States Senate. Later the United States government suggested that the scenic beauty problem at Niagara should be dealt with, but without any reference to the power problem there; in other words, that the power aspect should be postponed.

In view of the position taken by Ontario we informed the United States authorities that it would be impracticable to separate the scenic beauty problem from the general Niagara position. At a later stage there appeared some reason to believe that the United States government might find it practicable to reconsider their view as regards Niagara if the solution there could become part of a comprehensive plan covering the Great Lakes-Niagara-St. Lawrence system and providing for the solution of all the main

WHAT OTHERS THINK

problems, not simultaneously, but progressively as and when opportunity or economic considerations touching one part or another, on one side of the line or the other, might permit.

In an earlier paragraph I have referred to their strong emphasis upon this, as shown in communications made to you and your representatives in January and February, 1937. Later, in the first week of November, 1937, the United States made a further inquiry which showed that they still held the same strong view as to this kind of solution; and this time, as shown to you in my letter of the following week, dated November 12, 1937, they specifically indicated that they regarded the question of diversions into the Great Lakes as a matter to be dealt with as a part of a general settlement.

On each occasion, so far from attempting to impose anything, I could only, as I did, ask your views in order that I might be in a practical position to make some communication to the United States representative. Upon receiving your replies I naturally made the situation known to them.

I had assumed you realized that, in situations involving several interests, practical solutions can only be reached by agreement of all interests, and that, in making known to you from time to time the position of one of the essential parties in interest, I was only following a simple and necessary procedure familiar to all negotiators when confronted with differing views.

As there had been public misrepresentation of the government's position, and in order to remove completely any suggestion that our government was unwilling to take

the matter up specifically with the United States government as requested, a note was sent to that government in January, requesting that they enter an agreement to the effect that if the proposed diversion were made from the Kenogami river into the Great Lakes, the equivalent of the diverted waters should be exclusively available to Canada for power purposes below the point of diversion (which would mean at Niagara and along the St. Lawrence). The note has been acknowledged, but a definite reply has not yet been received.

PART three of the White Paper contains correspondence dealing with application last year from the Montreal Light, Heat and Power Consolidated for a license to export power and also communications between Mr. Hepburn and members of the Federal government dealing with Ontario's request for an export license. Bulk of this correspondence has already been published.

The final letter in the power export series was from Trade Minister Euler to Mr. Hepburn acknowledging receipt of a request for a license to export 90,000 kilowatts. Mr. Euler wrote, January 26, 1938, stating that the question of power export would be dealt with by Parliament and that a definite decision would then be made with regard to the application.

Notes on Recent Publications

FLOOD CONTROL IN NEW ENGLAND. Address by Governor Wilbur L. Cross, of Connecticut, at the 13th New England Conference, Hotel Statler, Boston, Mass. November 18, 1937.

HERE'S YOUR HAT MR. KING. By James M. Langley. *Yankee Magazine*. January, 1938.

This article is in the form and spirit of a reply to a 36-page letter recently released by Judson King, director of the National Popular Government League, which claims that there was a "joker" deliberately inserted into the New England flood control compact, in order to sabotage the Federal government's licensing claims to supremacy over the states and the control of hydro-electric sites which might be incidentally developed in the process of flood prevention.

PROGRESSIVE DEVELOPMENTS OF RURAL ELECTRIFICATION IN ILLINOIS. Address by Dr. Paul J. Raver at Annual Farm and Home

Week Program, Rural Electrification Session, University of Illinois, Urbana, Ill. January 13, 1938.

Although this was a routine address on the attitude of the state of Illinois toward rural electrification efforts, Dr. Raver indicates that the Illinois commission is taking some pains to be impartial in handling the differences arising in this program between private utility interests and the REA in cooperative alliances. He says: "It has simply been our policy to allow farmers themselves to decide whether they want company service or cooperative service, and then to devote our entire resources to carrying out that expressed desire. We have not tolerated utility service in areas where the farmers want cooperatives, and on the other hand, where the great majority of farmers have taken steps to secure utility service, we have tried to help them."



TVA Probe Approved

INVESTIGATION of the Tennessee Valley Authority by a ten-member joint congressional committee was voted unanimously on March 30th by the House of Representatives. As it probes into the New Deal agency, the investigating committee also will search, by specific direction, into the activities of private utility companies in their war upon the TVA, it was said.

The investigators were to be appointed by Vice President Garner and Speaker Bankhead as soon as the Senate concurred with limit-removing amendments inserted by the House and the joint resolution signed by President Roosevelt.

Before accepting the resolution the House rejected an effort to exclude from the inquiry the question whether there had been efforts by private utilities to influence the action or decision of municipalities or farm organizations with respect to the purchase of TVA power, or efforts by the utilities to injure public interests by opposition to the TVA Act. The standing vote on this amendment was 177 to 49.

The only other amendment which caused a serious difference of opinion was one offered by Representative Boileau of Wisconsin, to instruct the investigating committee to report by June 1st as to whether the two remaining directors of the TVA, Harcourt Morgan and David Lilienthal, were qualified to continue. Because of its wording the amendment would have required an investigation into the actions of Dr. A. E. Morgan, former chairman. It was contended that to require a report by June 1st on that phase of the investigation would "do violence to the committee," and that it was so closely related to the other subjects to be investigated that a final conclusion could not be reached until the whole inquiry was completed.

Opening debate on the resolution, Representative O'Connor of New York said he did not know why the Senate resolution had been prepared in such manner as to require presidential signature, but added that his committee had reported it to expedite the inquiry.

Representative Snell of New York declared that the need for an investigation had been shown when a man of the caliber of Dr. A. E. Morgan had been dismissed by the President. The issues raised by Dr. Morgan in demanding a congressional investigation, Mr. Snell

APR. 14, 1938

The March of Events

said, were fundamental, and he argued that there was no necessity for bringing private utilities into the investigation. Representatives Maverick of Texas and Rankin of Mississippi contended that there could be no adequate inquiry without including the activities of private companies, at least in so far as they related to the TVA development.

Disavowing any objection to a joint congressional investigation of the Tennessee Valley Authority, President Roosevelt notified Congress on March 23rd in a special message that he had removed Dr. Arthur E. Morgan from the TVA's board. At the same time he transmitted an opinion from Robert H. Jackson, acting attorney general, to the effect that the President had authority to take such a course.

Twice in his short message the President recognized the right of Congress to make its own investigation of the TVA affair, but he insisted that meanwhile he could not stand aside and let Dr. Morgan's actions go unchallenged. At no point, however, did the President specifically recommend a congressional inquiry.

Notwithstanding the lack of direct recommendation from the President, the move for a congressional inquiry had grown to the point where administration leaders were having considerable difficulty in holding it in check long enough to frame a resolution more suitable to them.

Meanwhile, the Senate Committee on Audit and Control had reported the Norris resolution favorably, recommending an expenditure of \$50,000 for the investigation. Chairman O'Connor of the House Rules Committee, in which several resolutions calling for a TVA inquiry had been referred, issued a statement urging an immediate sifting of the whole TVA controversy. Mr. O'Connor said:

"Nothing short of a wide approach to the survey will ever satisfy the American people. An investigation should not be confined to the matrimonial differences of the directors. It should be a wide, thorough, comprehensive, and non-white-washing inquiry."

FCC Issues Questionnaire

THE Federal Communications Commission last month adopted Order No. 38, requiring each licensee of a regular broadcast station to file with the commission information as to earnings and investment by such licensee. The action was pursuant to the recommendation

THE MARCH OF EVENTS

contained in the report on the social and economic aspects of broadcasting prepared by the engineering department of the commission on July 1, 1937.

Commissioner T. A. M. Craven, who prepared the aforementioned report and directed the preparation of the questionnaire accompanying the order, stated that the objective of the order was to secure vital information urgently needed by the commission in establishing policies with respect to the regulation of the broadcasting industry.

Seven "Little TVA's" Rejected

IN an action coupled to some extent with the movement for investigation of the Tennessee Valley Authority, the House Rivers and Harbors Committee on March 25th rejected President Roosevelt's program for six other regional power development and conservation authorities and decided to report instead a simple national resources planning measure.

The action, it was said, evidenced a determination to reserve to Congress in other areas many of the powers over flood control, power, and navigation projects delegated to the TVA under the "seven little TVA's" program. Powers similar to those vested in TVA would have been delegated, it was asserted, to comparable authorities.

The committee's action followed several recent executive sessions of the committee and extensive open hearings. According to Chairman Mansfield the action of the committee consisting of twenty Democrats and seven Republicans, was unanimous. Mr. Mansfield said:

"What we have done is to substitute a simple planning measure, under which a national board will merely recommend to Congress, for the President's bill, under which these regional authorities could have gone ahead with various projects subject only to obtaining a blanket appropriation from Congress, as in the case with the TVA."

The House Rivers and Harbors Committee subsequently reported with two minor amendments the bill it had agreed upon. One amendment would abolish the present National Resources Board, which President Roosevelt set up by executive order; the other provided that, if the proposed board appoints employees outside of civil service they receive pay no higher than the civil service scales for comparable work.

Chairman Mansfield said the first amendment, which was previously rejected as an invasion of the President's prerogatives, was adopted to prevent possible duplication of agencies.

Dam Fund Defeated

THE House defeated on March 22nd, by a vote of 186 to 157, a plan to appropriate \$2,613,000 to begin construction on the Gilbertsville dam in Kentucky, one of the largest

projects in the Tennessee Valley Authority's program for development of flood control, navigation, and power along the Tennessee river.

The vote was on an amendment, agreed to between House and Senate conferees, on the \$1,422,000,000 Independent Offices Appropriation Bill. The House, when it was originally considering this measure, refused an appropriation to start the project, but the Senate added the amount to the bill on an amendment by Senator McKellar.

Representative Bacon, Republican of New York, contended that there should be an investigation of TVA affairs before approval of further construction items. He described the proposed investigation as "necessary" for the proper guidance of Congress in the future, as regards the TVA. Mr. Bacon observed that three dams had been built on the Tennessee, and that four others were under construction. He said he thought Congress should give attention to other worthy flood control projects in the nation, pointing out that Los Angeles, which has been described by Army Engineers as being in imminent danger of a major disaster, had suffered a great flood within the past few weeks.

Representative Mansfield of Texas, chairman of the House Rivers and Harbors Committee, contended that the construction of the Gilbertsville dam under plans of the TVA would hurt, rather than help, navigation. Mr. Mansfield was believed to have represented the opinion of Army Engineers, who, it is known, have opposed TVA engineering plans in the past.

FPC Orders Discrimination Removed

THE Federal Power Commission on March 28th ordered the Gulf States Utilities Company, which operates in Louisiana and Texas, to remove within thirty days the undue discriminations found by the commission to exist in rate schedules under which five of the company's wholesale customers are served.

The commission's action followed its order of February 15th directing the company to show cause on or before March 16th why a certain one of its rate schedules, designated as Schedule 423, which would effect savings, should not be applied for electric energy sold to the communities of Abbeville, Broussard, and Erath, Louisiana; the Louisiana Power & Light Company; and the Gulf Public Service Company. The recent order stated that if the company failed to remove the discrimination within thirty days, the order to show cause dated February 15th "shall not be deemed to have been satisfied."

In addition to rate discrimination against the five wholesale customers, the commission's order of February 15th directed the company to show cause why its present various credits

PUBLIC UTILITIES FORTNIGHTLY

for stand-by service should not be made uniform or eliminated and reflected in the rate charged and applied to all customers uniformly.

The company responded to the show cause order with a letter stating in part:

"It has been our intention since the institution of Schedule 423 on July 1, 1937, to offer this rate to the parties applicable as their contracts expired. However, if it is the desire of your commission that this schedule become effective immediately, we shall be glad to cooperate and immediately offer new contracts to the customers."

The letter added that "riders giving credits for stand-by service will be uniform to all parties covered in your order upon application of Schedule 423."

TVA Approves Contracts

POWER contracts with three cities, Columbus and Starkville, Miss., and Lenoir City, Tenn., were approved by the board of directors of the TVA last month. Lenoir City has two electric systems. A municipally owned diesel generating plant and distribution system serves all the municipal load and about 50 additional customers in the city. Others are served by the Tennessee Electric Power Company.

Columbus, largest of the three cities with which contracts were approved, voted 1,060 to 145 for a municipal system to distribute TVA power. Starkville voted 424 to 51 for a municipal system and the city obtained a grant and loan from the Public Works Administration for construction of both a generating plant and distribution system. Plans for the generating plant have been discarded. Columbus and Starkville are served by the Mississippi Power Company.

Ontario Withdraws Bill

ARTHUR SLAGHT, friend and representative of Premier Hepburn of Ontario in the Canadian Parliament, on March 22nd accepted President Roosevelt's veto of the import of Canadian power into the United States and

of Ontario's proposal to divert water into the Great Lakes and take it out again at Niagara.

Mr. Slaght was to have introduced a bill to license export to the United States of 110,000 Quebec horsepower surplus of Ontario's needs. In announcing its withdrawal he avoided even a hint of resentment at President Roosevelt's action, although it was said to be a bitter blow to Premier Hepburn. Mr. Slaughter declared:

"The views of the President of the United States on a subject of such an international character as the export of power should receive from this Parliament the utmost consideration and respect. It would be improper to suggest we should regret the position he takes. The President and the Secretary of State, Mr. Cordell Hull, are in my opinion the best friends Canada has in the United States."

R. B. Bennett, Conservative leader, who had opposed the Ontario proposal, said:

"The United States is considering first the care of its own people and its own country. Mr. Cordell Hull, the Secretary of State, is a realist—his government is realist."

Tokio Takes Over Power Industry

JAPAN took a long stride toward a dictatorial government recently as parliament passed a measure placing the nation's entire electric power industry in the hands of the government. Passage culminated thirty-six hours of continuous debate.

General Gen Sugiyama, war minister and one of the bill's strongest proponents, declared the concentration of authority was necessary in case of war.

The two houses of parliament were deadlocked over the electric power bill as adjournment neared, but passage was facilitated by an extra day's grace which Emperor Hirohito granted in an imperial rescript.

Under a government threat to dissolve parliament if the measure failed, the diet gave a joint committee of the house of peers and the house of representatives final decision on the bill. The committee reached a compromise which the government accepted.

Arizona

Use of Boulder Power Hit

PROTESTS were presented to the state corporation commission last month on granting a certificate to the Citizens Utilities Company of Minneapolis for use of Boulder dam power at Kingman. The opposition came as the commission opened a hearing on the utility's application for permission to construct transportation facilities to Kingman from the dam.

The utility already has entered into a contract with the Secretary of Interior and has

received the approval of that document from the Metropolitan Water District of Southern California.

Alfred Stetson, secretary of the Boulder Dam Transmission Association, and Lemuel Mathews, representing the Greater Phoenix Ownership of Public Utilities, presented the state commission with a resolution urging that before the corporation commission grants a certificate, approval first be secured from the Colorado River Commission; that power rates be fixed; that rates and standard of service be

THE MARCH OF EVENTS

justified and guaranteed showing substantiation of a reduction over the present rate, and that the ultimate destination of the power line be understood.

The commission also was presented with a brief signed by thirteen persons asserting that the Citizens Utilities contract was especially "subject to the Santa Fe-Colorado river compact." The brief contended that the commis-

sion has no authority to consider the contract.

An opinion from Frederic L. Kirgis, acting solicitor of the Interior Department, said that approval of the Citizens Utilities certificate did not constitute ratification of the compact but that it "would, however, be subject to the provisions of the Colorado river compact for a duration of any contract for the use of Boulder dam power which it executed."

Arkansas

Municipal Plant Rates Cut

CONSUMERS of the Jonesboro city water and light plant will be given a saving of \$21,000 annually as the result of the tenth reduction in electric rates in the past eleven years, it was announced last month.

Bills payable on and after May 1st will be under the new rates, it was announced. The

reduction will affect every consumer, including those at Nettleton and others outside the city limits of Jonesboro.

Rate reductions in the past eleven years have saved customers of the municipally owned plant more than \$1,300,000, compared with what they would have paid in 1927. Officials of the company reported a net operating profit of \$55,938.93 for 1937.

Florida

Rate Inquiry Set

ATTORNEYS for the Florida Power & Light Company and for the city of Miami were granted an appointment for April 14th before Circuit Judge H. F. Atkinson for hearing argument on all phases of the city's mandamus to compel the company to allow city representatives to examine its books and records, in connection with which an alternative writ was issued several weeks ago.

Argument was to be based on the company's motion filed March 26th to quash the alternative writ on the ground the examination sought was beyond the scope of authority given in the city charter and was a "fishing expedition," and to strike out 18 paragraphs of the city's petition, on which the writ was based, on the ground they were "not facts by conclusions of law."

Under the guise of investigation into alleged "discriminations in rates," the company contended, the city was attempting to get into its possession not only records concerning rates in Miami, but was seeking to probe into matters of business transacted by the company beyond the Miami city limits and with which, it was contended, the city was not legally concerned.

Refusal of company officials to allow records to be inspected at this time, the motion charged, was plainly due to the fact the city sought to make an unlimited investigation into its affairs, and also was based on lack of a proper resolution by the city commission or proper notices from the city manager or from Thomas E. Grady, rate consultant, who is under indictment.

The motion also asserted that the alternative writ failed to say exactly what company officials were expected to do in order to comply.

Idaho

Phone Rate Hike Halted

THE state public utilities commission last month suspended a revised schedule of rates filed by the Pacific Telephone and Telegraph Company which would have increased telephone costs an estimated \$61,000 annually to company patrons in Idaho.

Residents of the central Idaho region tributary to Lewiston are served by the company.

The new schedule was filed, the commission said, after the company had refused to elimi-

nate voluntarily its present extra monthly charge for use of hand-set phones. The company was then ordered by the commission to show cause at a public hearing at Lewiston, April 15th, why it should not eliminate the charge. The hearing originally was set for February, but was delayed to permit company representatives to confer with the state commission.

The commission said the rate increase, if granted, would boost the company's operating revenue 34 per cent as compared with 1937.

PUBLIC UTILITIES FORTNIGHTLY

Reduction through Conference

IN conformity with the policy of the state commission to secure rate reductions through conference with utilities, a new schedule of rates covering residential power and commercial lighting service was negotiated last month with representatives of the Utah Power and Light Company.

In addition to the reductions secured the rate structure was simplified by combining all residential service into one schedule. By combining all residential service into one schedule the new minimum of 90 cents represents a reduction over previous minimum schedules of from 10 cents to \$1.10.

Under the previous residential lighting schedule a charge of 10 cents per kilowatt prevailed for the first 60 kilowatt hours and a

charge of 7 cents for all additional kilowatt hours. By comparison the new schedule calls for an average rate of approximately 6½ cents for the first 50 kilowatt hours and 2½ cents for the next 164 kilowatt hours. The new residential schedule represents an approximate saving of \$24,000 to the customers of the Utah Power and Light Company in Idaho.

Under the new commercial lighting schedule the low rates contained in the so-called objective rate schedule became effective immediately, representing a reduction of approximately 25 per cent over existing rates, or an estimated saving to customers of \$17,000 for this class of service.

Other reductions were effected through changes in rules, resulting in a total estimated reduction to users of residential power and lighting and commercial service of \$46,000.

Iowa

REA Funds Ready

SHOULD legal proceedings prevent Maquoketa from enlarging its electric generating plant to supply power to the Maquoketa Valley Rural Electrical Cooperative, the Rural Electrification Administration will lend the cooperative itself funds necessary to build a gener-

ating plant, according to a recent announcement of REA Administrator Carmody.

The first REA-financed generating plant to go into operation has been energized near Iowa Falls. Administrator Carmody said, sending congratulations to the Federated Cooperative Power Association which built the plant to supply 4,000 customers.

Massachusetts

Utility Bills Rejected

SEVERAL bills sponsored by Lieutenant-Governor Kelly and others seeking to establish municipal lighting plants were turned down last month by the committee on power and light in reports to the state legislature.

Five other bills seeking to require electric companies to supply bulbs to their customers free of charge were sent back to the power and light committee pending action by the house to obtain from the state supreme court an opinion as to the constitutionality of the proposed measure.

Demands Public Ownership

DEMAND for public ownership of the Boston Elevated without further delay was made at a hearing recently by Representative Albert T. Morris of Everett, who told the committee on metropolitan affairs that the common stock could be bought for \$14,000,000 at Governor Hurley's estimated figure of \$60 a share.

The legislator expressed the belief that even more money could be saved by the public if the El were taken through eminent domain proceedings, but he said that he would support the purchase bill this year if reported favorably.

Michigan

Gas Control Questioned

THE state public utilities commission continued last month with plans to extend its authority over the natural gas industry, despite a challenge of its jurisdiction.

Kit F. Clardy, of Lansing, former state commissioner, insisted an act of the 1937 legisla-

ture had transferred administration of gas production to a new officer, the state supervisor of wells. The attorney general held recently that the state legislature had not taken away the commission's jurisdiction. Clardy told the commission that while he had confidence in its integrity, future commissions might employ the proposed new rules to "throttle" the industry.

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THE MARCH OF EVENTS

Fred L. Kircher, Lansing councilman, charged that "big interests" have discriminated against the Michigan natural gas industry. He said he would ask some member of the 1939 legislature to sponsor a bill forbidding the sale in Michigan of gas produced in other states until Michigan wells are disposing of at least 5 per cent of their open flow.

Kircher asserted Michigan's gas resources are adequate to supply Flint, Jackson, Kalamazoo, and Battle Creek with fuel, in addition to the existing markets. He said the industry in Michigan needed more markets.

The state public utilities commission on

March 16th denied a petition by the Washenaw Gas Company of Ann Arbor, for permission to build a pipe line which would bring the city natural gas from Texas. The commission decided the proposed pipe line, against which Michigan natural gas producers have objected bitterly, would not "serve public convenience and necessity."

Because they had been unable to find any "facts" and could not agree on their estimates of Michigan's natural gas reserves, a natural gas fact-finding committee, appointed last year by Lieut.-Governor Leo J. Nowicki, suspended operations last November, it was revealed.

Mississippi

Utility Bill Offered

REPRESENTATIVE Thomas J. Reed of Adams County introduced a bill on March 16th designed to empower city and county authorities to prescribe maximum rates and charges on water, gas, and electricity supplied by a company or corporation to the respective municipalities and counties.

Mr. Reed asserted that Natchez particularly "needs a bill similar to this in order to protect the rate structure under a proposed 25-year franchise to the Mississippi Power and Light Company."

He said under the present code a section authorizes municipalities and counties "may" prescribe maximum rates but it does not give them authority to take such action.

Nebraska

Seeks to Enjoin District

A BILL in equity seeking to permanently enjoin the Middle Loup Public Power and Irrigation District of Arcadia from using or attempting any use of the Middle Loup waters, unless full and adequate compensation is made to the complainant, was filed in Federal district court at Grand Island last month by the Central Power Company, a Delaware corporation which has operated a hydroelectric plant near Boelus since 1916.

It also asked that the defendant district be enjoined from in any manner interfering with or preventing the usual, normal, and natural flow of all the waters of the river down to the intake and works of the complainant corporation, and asked a temporary restraining order during pendency of the suit.

Authorized to Purchase Companies

THE Platte Valley Public Power and Irrigation District directors at a special meeting held at North Platte on March 14th authorized Guy C. Myers of New York, their fiscal agent, to submit offers for purchase of four private firms operating in the district's area.

The firms and amounts offered were as follows: Gothenburg Light & Power Company,

\$245,407; Nebraska Light & Power Company of McCook, \$452,244; Central Nebraska Power Company of Grand Island and Northwestern Public Service Company of North Platte and Columbus, joint offer of \$8,765,000.

Directors said figures for the Platte valley share of the proposed purchase were not available pending an allocation to be made between the three major public hydroelectric districts involved in the joint offer.

Favor Municipal Plant

VOTERS of York last month approved by a plurality of 282 a \$475,000 revenue bond issue for the purpose of acquiring a municipally owned light plant and distribution system. The unofficial complete returns showed 1,455 in favor of the bond issue and 1,173 against it.

Interest in the proposal was high, it was said, but a record vote was not cast. The total was approximately 400 short of votes in a special election about four months ago.

The bonds will be secured by earnings from the municipal system. An engineer's report fixed \$475,000 as the maximum required for construction of a generating plant and distribution system, but it was pointed out expenditure of the sum would be necessary only if the council were unable to negotiate a suitable contract with the Iowa-Nebraska Light and Power Company, or one of the hydroelectric

PUBLIC UTILITIES FORTNIGHTLY

districts for purchase of power. York is now being served by the Iowa-Nebraska Company.

Power Rates Reduced

An additional reduction in electric rates was announced recently by the Iowa-Nebraska Light and Power Company to affect generally the rate structures in the company's outside districts, exclusive of Lincoln. No change in

rate was instituted in Lincoln, company officials explained, because the Lincoln rate schedules are comparable to the new rates.

It was said the rate reduction would cost the Iowa-Nebraska Light and Power Company approximately \$200,000, and would become effective with meter readings after March 25th. The series of rate reductions made by the company since 1924 amount to approximately 61 per cent decrease.

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New York

Relief Tax Upheld

THE power of New York city to impose a 3 per cent levy on the gross income of public utilities for unemployment relief was upheld by the U. S. Supreme Court on March 28th in a unanimous opinion rendered by Justice Reed. Soon afterward the court refused to review two decisions by the state court of appeals holding invalid the application of a 2 per cent sales tax by the city upon out-of-the-state concerns doing business in the city.

The major case was brought by the New York Rapid Transit Corporation, which had lost in the state supreme court. They had charged that the tax was discriminatory, violated the due process and equal protection clauses of the Constitution, and impaired their contracts with the city limiting fares to 5 cents. New York city countered that the tax was entirely legal under a state law authorizing municipalities to meet unemployment relief demands. The city repudiated the contention of unconstitutionality.

The utilities sought to recover \$1,408,697 paid by the New York Rapid Transit Corporation and \$756,879 by the other, to the city for 1935 and the first half of 1936. They said they were taxed at a rate 3,000 per cent higher than the levy upon other businesses for the same purpose. Operating expenses of street railway corporations, they also contended, were much higher than those of other corporations included in the tax. Justice Reed stated:

"Although the wide discretion as to classification retained by a legislature often results in narrow distinctions, these distinctions, if rea-

sonably related to the object of the legislation, are sufficient to justify the classification. The power to make distinctions exists with full vigor in the field of taxation, where no 'iron rule' of equality has ever been enforced upon the states. These public service organizations have no valid ground by virtue of the equal protection clause to object to separate treatment related to such distinctions."

Abandons Power Plan

PLANS for the construction and operation of a municipally owned power plant, approved at referendum in the village of New Hyde Park more than two years ago, were abandoned recently by unanimous vote of the same village board that originally proposed the project. The board's action was announced after PWA officials in Washington were notified that the village had decided to reject the loan and grant of \$300,000 to be used for the construction of the plant.

Reductions in rates by the Long Island Lighting Company and increases in estimated costs, which would necessitate another referendum, were cited as reasons for the abandonment of the project. The action of the board was taken on recommendation of Village Counsel David Holman and Clyde Potts, the engineer who drew the original plans for the plant.

Mr. Potts said the rate cuts by the Long Island Lighting Company, above whose rates the municipal plant could not operate, had decreased the estimated revenue from \$46,182 to \$34,476.

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Ohio

Granted Phone Fight Fund

INITIAL steps to provide funds to continue the Ohio Bell Telephone Company rate controversy, were taken by the state emergency board last month when it granted an appropriation of \$10,000 to the state utilities

commission for the employment of additional accountants, engineers, and other experts.

The board's action followed a request for \$49,910, for the operation of the commission's normal functions together with its separate division of investigation.

Judge Charles F. Schaber, chairman of the

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THE MARCH OF EVENTS

utilities commission, asserted that because of the numerous applications for rate revisions filed by various utility interests, together with the numerous appeals from city rate ordinances, the state commission would be forced to curtail its activities at the close of November.

Questioned concerning the possibility of attorneys for the commission and the company

reaching an agreement upon valuations of company properties, upon which they could arrive at an agreement for a refund to the customers for the years 1925-32, inclusive, Judge Schaber asserted that further hearings in the case would hinge upon whether opposing counsel could agree to continue on a basis of the company-wide valuations or upon the valuations of each individual exchange.

Pennsylvania

Intrastate Phone Rates

THE state public utility commission last month directed the Bell Telephone Company of Pennsylvania to file, effective April 1st, revised schedules of long-distance rates for intrastate service, involving points more than 36 miles distant. The new rates must conform with rates charged by the American Telephone and Telegraph Company over comparable distances in interstate commerce.

The commission said that the probable reduction in revenue, as a result of the order, would be about \$600,000 a year.

The difference in the rates, the state commission held, is an unreasonable discrimination. It is possible to talk from Harrisburg to points in New Jersey at the same rate as charged for a call to Philadelphia. A Philadelphia-Harrisburg call for the 3-minute minimum period costs 60 cents.

Threatens City Operation

MAYOR Wilson of Philadelphia warned P. R. T. underliers recently that he was ready to sponsor municipal operation of subway, elevated, and bus lines unless they "cease blocking" P. R. T. reorganization.

The mayor said he favored municipal operation only as a last resort, because it would wipe out transit investments of P. R. T. employees, the general public, and "certain innocent investors in underlier securities." But a ruthless bloc of underliers, he said, threatened to force the city to take over the fast-aging transportation equipment and provide modern traction service in keeping with civic needs.

The mayor said he believed the city could take over the subway-elevated system by having its 1907 agreement with the P. R. T. and underliers declared invalid "because it has been broken repeatedly."

South Dakota

FPC Authorizes Plant Sale

THE Federal Power Commission recently authorized the sale to the city of Flandreau by Union Public Service Company of the company's electric light and power facilities located in and adjacent to that city. Under an agreement, the company would sell to the city of Flandreau, for a cash consideration of \$77,500, its local properties.

The company estimated the cost of the property at \$167,945.72 and the depreciated value at \$104,670.07. Its franchise expired in April, 1937, and the city refused to renew the franchise and took steps toward authorization of the construction and operation of a municipal electric light and power plant and distribution system. This was followed by negotiations for the sale of the company's plant to the city.

Texas

Entitled to Refund

GAS consumers in Laredo became entitled to \$38,000 in refunds by the recent refusal of the U. S. Supreme Court to reconsider its affirmance of a rate reduction order.

With the court's refusal to grant a hearing in the appeal of the United Gas Public Serv-

ice Company from a state commission order reducing gas rates in Laredo from 75 cents to 55 cents per thousand feet, it was said the commission's activity in the case is now completed. It was the first gas rate case to be tried before a jury.

Refunds will date from January 1, 1932, Commissioner E. O. Thompson said.

Virginia

Commission Issues Injunction

An injunction to prevent the unwarranted draining of the financial assets of the Virginia Public Service Corporation, which furnishes power to some 500 Virginia communities, including Alexandria, by its parent holding company in New York city, was issued last month by the state corporation commission.

H. Lester Hooker, chairman of the state

commission, said the injunction was inspired by the fact that twice in the last eight months the parent company, which controls the Public Service Corporation, has declared two 10 per cent common stock dividends amounting to \$128,000.

Chairman Hooker said the injunction would prevent not only the declaring of dividends, but the transfer of any funds for ninety days. A hearing on the injunction was scheduled in Richmond for April 12th, Hooker said.

Wisconsin

Plant Price Fixed

TAKING action which would permit Plain village residents to vote on selling their municipal electric plant to the Wisconsin Power and Light Company, the state public service commission on March 17th fixed a price of \$50,000 on the plant.

The price fixed was \$15,000 more than the \$35,000 which village officials last year agreed to accept. The commission, in taking the step, pointed out that it had exhausted all available means of helping the village retain the plant.

The company was at the same time ordered by the commission to extend electric service within ninety days to about 100 farmers near Plain. The commission, in issuing the order, said the only possible means of electrification in the immediate future of the area was by the company, and that the municipal utility was in no position, financially or otherwise, to extend.

Rate Case Appealed

IN behalf of the state public service commission, Harold M. Willkie of Madison, special counsel, on March 24th filed notice of appeal in the Wisconsin Telephone Company rate case in Dane county circuit court.

Appeal was taken by the commission before the state supreme court from the recent decision of Judge A. C. Hoppmann which threw out two rate reduction orders issued by the commission—one to cut the company's rates \$1,017,000 from August, 1934, to August, 1935, and the other to reduce the company's rates permanently about \$860,000 a year, starting May 1, 1936.

Because of the tremendous record in the huge case, the arguments on appeal probably would not be heard by the state supreme court until next fall, it was predicted, since as much as 25,000 printed pages of record may have to be prepared for the court this summer.

The state commission was sustained by Judge Hoppmann in its 1936 order reducing

the company's depreciation rates about \$700,000 a year. It was held probable that the company would appeal Judge Hoppmann's decision on this proceeding.

Defend Advertising Right

PUBLIC utilities in Wisconsin spent less than one per cent of their gross revenue on advertising during 1937, according to Arthur F. Herwig, Milwaukee, executive secretary of the Wisconsin Utilities Association, after a survey of replies made by major utilities to a questionnaire issued by the state public service commission. The amount, Herwig said, is too small, compared with similar expenditures of other businesses, which run up to 5 per cent or even 20 per cent.

In the survey, the utilities indicated they have no objection to proper accounting for advertising and publicity under commission regulations. However, the companies did object to any curtailment of the right to exercise free speech under any and all circumstances. Advertising is necessary for survival in the utility business, Herwig pointed out, and it is to the public interest to have utilities increase their "protective" advertising to defend themselves against malicious attacks in order that customers and stockholders might be informed with respect to their interests. Herwig said:

"Utility advertising promotes safety among its customers, raises the standard of living by promoting new labor-saving appliances, and maintains friendly relations between investors and the management. Expenditures for appliance advertising and publicity, conveniently termed propaganda by some people, are as necessary in the operation of the public utility business as they are in any other business. Advertising promotes the use of the product manufactured, reduces unit selling cost, and improves friendly customer relations."

Mr. Herwig said advertising had been resorted to by the utilities to further reductions in rates through the promotion of increased use of utility services.

The Latest Utility Rulings



Holding Companies Must Register

By a six to one opinion, the United States Supreme Court on March 28th held, on an appeal brought by the Electric Bond and Share Company, that those sections of the Public Utility Holding Company Act of 1935 which compelled utility holding companies to register with the SEC or lose the privilege of the mails and other channels of interstate commerce are constitutionally valid.

Discussing the congressional purpose of the act, to protect investors and consumers who might be "affected" by operating of public utility holding concerns, Chief Justice Hughes said:

Without attempting to state the limits of permissible regulation in the execution of this declared policy, we have no reason to doubt that from these defendants, with their highly important relation to interstate commerce and the national economy, Congress was entitled to demand the fullest information as to organization, financial structure, and all the activities which could have any bearing upon the exercise of congressional authority.

In full agreement with the government admonition to companies to "sign-first-

sue-afterward," the opinion then stated:

To escape the penalty and the enforcing provisions of the decree, all that the defendants have to do is to register with the commission, and assume, under §5, the obligation to file the described registration statement. All their rights and remedies with respect to other provisions of the statute remain without prejudice.

As a result of the court's action, it was said at the commission's offices, utility holding concerns with combined assets of about \$15,000,000,000 are now compelled to furnish broad data on their financial structures, operations, and business, or suffer the penalties.

Justice Cardozo, still recovering from a recent illness, did not participate. Justice Reed also declined to participate because of his recent connection with the litigation as Solicitor General. Mr. Justice Black, who before his appointment to the Supreme Court, was also active in the Senate as a critic of utility holding companies, did, however, participate. Justice McReynolds, lone dissenter, wrote no opinion. *The Electric Bond & Share Co. v. Securities and Exchange Commission.*

Dividend Payments Prohibited to Protect Customers' Claims to Refund

THE Pennsylvania commission prohibited the Edison Light & Power Company from paying or declaring dividends or paying on account of indebtedness to affiliated companies pending the result of an investigation to determine whether such payments would impair the company's ability to render adequate service and to make refunds to customers for amounts collected during rate

litigation in excess of reduced rates ordered by the commission.

A rate order which is now being subjected to attack in the courts would require a reduction of approximately \$435,000 a year in gross revenue of the utility. The company filed a bond, in order to keep present rates in effect, conditioned upon prompt payment by it to its customers of such sums as might be

PUBLIC UTILITIES FORTNIGHTLY

payable on account of damage suffered during the effective period of a temporary restraining order, and also to provide security for the payment of costs and damages. The amount of the bond is \$150,000, and no surety appears upon the bond.

The commission said that if it should find that the rates have been excessive in the amount of \$435,000 a year during a period beginning January 27, 1934 (two years before the complaint against rates was filed), the consumers would be entitled to somewhat more than \$1,776,250 in reparations up to February 28, 1938. The Edison Company owes to affiliated companies over \$1,000,000, and according to a balance sheet submitted to the commission current liabilities exceed liquid assets, while a surplus of \$369,672.92 is shown. The commission said this indicated that the company could

legally pay out more than its quick and liquid assets in dividends. Such dividends would go to a parent company involved in a reorganization proceeding under §77B of the Federal Bankruptcy Act.

Under these circumstances, the commission said, it was clear that the proper and adequate continuance of the public service of Edison Light & Power Company would be jeopardized if improper payments on account of dividends or indebtedness to affiliated companies were made. Furthermore, reimbursement to consumers for excessive rate payments might also be rendered less susceptible of prompt and satisfactory accomplishment. Accordingly the commission ordered an investigation and restrained such payments pending its outcome. *Pennsylvania Public Utility Commission v. Edison Light & Power Co.* (Complaint Docket No. 11585).



Purchase Price of Stock Must Be Supported by Assets

THE New York commission, in denying authority to acquire stock of a transportation company at a purchase price of \$1,000, where concededly there was no book value back of the stock, held that the acquisition at the price proposed was not in the public interest. The statute under which the commission acted provides that no consent to such acquisition shall be given by the commission unless it "shall have been shown that such acquisition is in the public interest." The commission said:

How can the commission hold that this expenditure is in the public interest? While

it is true that the commission is not the financial manager of utilities under its supervision, yet when the statute places upon the commission the definite duty of passing upon the acquisition of securities by such a utility, the commission is bound, if it properly carried out its delegated duties, to investigate and determine if the purchase price proposed to be paid is reasonable and justified, and if after such investigation it be determined that the result of the purchase would be to deplete the capital assets of the company, the commission has no option but to find that such proposed acquisition is not in the public interest and that authority to the acquisition should be denied.

Palmer et al. v. Soundview Transportation Co. Inc. (Case No. 9406).



Water System in Real Estate Subdivision Not a Public Utility

A COMPANY which had developed a real estate subdivision as a residential district and laid mains in the streets, avenues, and alleys of the subdivision for the sole purpose of furnishing water to the purchasers of lots was held by the Missouri commission not to be

operating a water system as a public utility. The company purchased its supply from an adjoining municipality which operated its own waterworks.

The decision was on a complaint by a near-by land owner who had demanded water service. His land was part of the

THE LATEST UTILITY RULINGS

original tract, but he had acquired it prior to the subdivision of the remainder of the tract as a separate real estate enterprise. The subdivision in its present form constituted an exclusive and restricted area in which the complainant owned no real estate.

The owner of the subdivision claimed that the system was not dedicated to public use but to secure water service for an exclusive and private use, the residents of the subdivision. It was to be operated

at cost and not for hire. A statement of revenues showed that it had been operated at a loss without including anything for interest on investment, depreciation, wages, and certain other items. The commission said that apparently this was provided by the parties interested in the sale of the lots. The complaint was dismissed on the ground that the system did not constitute a public utility. *Martin v. Briar Cliff Water Co.* (Case No. 9445).



Breakdown Service by Electric Utility Company

APPPLICATION of demand charges when a breakdown and auxiliary service is furnished by an electric utility company to a private plant owner is discussed by Commissioner Van Namee of the New York commission in a case involving a complaint by a customer against rules, regulations, and practices of the Consolidated Edison Company of New York. The commission dismissed the complaint and modified certain provisions of the schedule relating to breakdown service.

The customer operated a private plant consisting of a steam engine directly connected to an alternating generator and a direct current generator. The output of the direct current generator supplied the general building requirements, while the output of the alternating current generator supplied energy for lighting, operation of tenants' refrigerators, and submetering to tenants. The company had based its demand charge on 80 kilowatts, or the summation of the separate alternating current and direct current demands in the contract, while the energy consumption of the two services was combined and the charges therefor computed on that basis. Demand limiting switches had been installed for each type of service to the amounts specified in the contract.

The customer argued that one limiting switch set to the value of the coincident demand of the alternating current and direct current service was all that was necessary. Commissioner Van Namee

made the statement quoted below:

The proposal to install a single demand limiting switch set at 80 per cent of the combined A.C. and D.C. demands is a proposal that cannot be reconciled with the opinion of the commission in Case No. 8622. The continuous capacity of the complainant's A.C. generating plant at unity power factor is 93.8 kilovolt amperes. At the average power factor of 85 per cent in periods of heavy load the capacity is approximately 80 kilowatts. The capacity of the D.C. plant is reported to be 40 kilowatts with a momentary load of 80 kilowatts allowable. Assuming that the complainant contracts for 96 kilowatts or 80 per cent of 120 kilowatts (80 kilowatts A.C. and 40 kilowatts D.C.) and a single demand switch, set to 96 kilowatts, was installed, what latitude would the complainant have in the use of demand? Since the demand limiting switch would only open at that point where the coincident A.C. and D.C. demands exceed 96 kilowatts it is evident that control of demand usage on each type of service is lost. Clearly the complainant could have available 96 kilowatts for the supply of A.C. service if the D.C. service is not in use and an analogous condition would prevail with respect to the supply of D.C. service. In the case of D.C. plant the maximum of 96 kilowatts available amounts to over twice the continuous capacity of 40 kilowatts and 16 kilowatts greater than the momentary overload capacity of 80 kilowatts. For the A.C. plant, it is 16 kilowatts above 80 kilowatts considered to be the "continuous capacity" of the A.C. generator at 85 per cent P.F. While the foregoing examples illustrate the extreme of what could occur and it is not a reasonable expectation that this condition would be reproduced in actual operations, other instances can occur where the actual demands on either type of service may exceed the demand specified in the application for service or the capacity of the generating unit.

PUBLIC UTILITIES FORTNIGHTLY

A proposal to install a limiting switch set at the capacity of the alternating current generator to supply the maximum demand was also held to be impracticable,

in view of discrimination, load factor, and power factor. *The 210 East 68th Street Corp. v. Consolidated Edison Co. of New York, Inc.* (Case No. 9409).



Contracts Cannot Estop Carrier from Collecting Established Rates

THE supreme court of Minnesota held that public policy permits the recovery by a contract motor carrier of rates prescribed by the commission, notwithstanding an agreement between him and a shipper for transportation at a lower rate. The agreement for a lower rate, it was held, does not estop the car-

rier. It is a nullity and the prescribed should be read into the contract.

That the carrier had not complied with the rules of the commission requiring the filing of reports and the use of bills of lading was held to be no defense to such a recovery. *Johnston v. L. B. Hartz Stores, Inc.* 277 N. W. 414.



Revenues from Water Extension

A COMPLAINT by a county against charges made by a water utility for service furnished to a county institution was dismissed by the Missouri commission where it was shown that the charges produced a revenue less than would be produced under the company's extensions rule. The commission said that under the decision of the supreme court in State *ex rel.* St. Louis County Gas Co. *v.* Public Service Commission, 315 Mo. 312, P.U.R. 1927A, 187, the commission can only require the company to extend its mains in conformity with the rules in effect at the particular time. Should conditions warrant an investigation of the rule, that can be made and the rule modified as the evidence may require.

The county took the position that revenues were shown to be excessive because in twenty years the company would receive \$90,000 in gross upon an extension that cost slightly in excess of \$30,000. The commission said that this was not controlling in the matter of fixing the rates that should be charged for the service rendered. The rates the company should be permitted to charge, said the commission, should be those rates that would allow it to earn a reasonable return on the fair value of the property after all the operating expenses have been paid and a proper reserve set aside for replacement or depreciation of the system. *Jackson County v. Independence Waterworks Co.* (Case No. 9466).



Classification of Electric Customers for Rate Making Sustained

A MILLING company which is supplied with alternating current at 44,000 volts for the operation of an 1,800-barrel flour mill and for its feed mill and storage operations, according to a decision by the Utah commission, is not discriminated against by a rate classification un-

der which other consumers are supplied with electricity at 110, 220, or 440 volts for the operation of the family electric range or water heater, or for bakery heating and cooking purposes. Distinctions which are the basis of such classification were said to be quite apparent and

THE LATEST UTILITY RULINGS

to justify fully the classifications by the company.

It was said to be true that the electric energy furnished to the milling company was the same kind of electricity and came from the same source as that furnished to other customers for heating and cooking purposes, but this, it was said, was not the basis for the classification. The customers' request that they be supplied with power under the heating and cooking schedule was deemed an admission that classification was legal and proper. The commission made the following statement:

It is a well-established principle of law

that a utility may have different rates for different classes of customers. The only legal inhibition is that it must not classify its customers arbitrarily and unreasonably, but alike when the circumstances are similar. This principle is so elementary that it is unnecessary to cite legal authorities in support thereof.

A contention that the milling company had never been notified of the filing of the other schedule was overruled with the statement that it was not the duty of the company so to notify it, since the filing of a schedule with the commission is considered notice to all patrons. *Globe Grain & Milling Co. v. Utah Power & Light Co. (Case No. 1926).*

Injunction against Commission Denied When Compliance with Order Requires Court Action

THE extraordinary remedy of injunction, according to a Federal court decision in Kentucky, should not be used to prevent enforcement of a commission order instituting a rate investigation and requiring the production of evidence, although the company against which it is directed asserts that the commission does not have jurisdiction and that the production of such evidence entails great expense. The court pointed out that the Kentucky commission may compel obedience to orders by mandamus or injunction or other proper proceedings in a state court and that it may institute an action to recover prescribed penalties. It has no power, however, to coerce observance of a challenged order itself.

Sole authority for making the commission's orders coercively effective, it

was said, rests with the court in which such action may be instituted. Ford, district judge, said further regarding this question:

Since the commission is powerless to coerce observance of the challenged order by inflicting penalties for disobedience or otherwise, and it is not shown that complainant's business or property rights are in any way threatened by any arbitrary action of the commission, obviously, notwithstanding the commission's order, the complainant may passively stand upon its claimed constitutional rights, and, when necessary, may assert them in defense of any enforcement proceedings instituted in the courts without, in the meantime, suffering any injury or damage or being compelled to incur any expense whatever.

Petroleum Exploration, Inc. v. Public Service Commission of Kentucky, 21 F. Supp. 254.

Scheduled Charges Supersede Contract Rate after Purchase of Telephone Exchange

THE Wisconsin commission, asserting its power to change rates fixed by a contract between telephone companies, ruled that when one company acquired the exchange of another company the established switching rate of

the purchaser would apply in the absence of any other direction by the commission in its order of approval. This would be true notwithstanding a contract rate established by the selling company for service to a switched company.

PUBLIC UTILITIES FORTNIGHTLY

The controversy arose when the Farmers Independent Telephone Company acquired from the Wisconsin Telephone Company an exchange which was rendering switching service to the Logging Creek Telephone Company. This service was under a contract which provided for a charge of 62½ cents per station per month. The lawful rate of the Farmers Company was 31 cents per station per month. Thereafter the commission prescribed a rate of 41 cents for the Farmers Company. The commission held that the 31-cent rate was applicable notwith-

standing the contract charge until the new rates were established. After that the 41 cents was the proper rate for service to the switched company.

Although the commission held that it had jurisdiction over contract rates, it directed attention also to a provision of the agreement itself which provided that the charge specified for the service would be subject during the term of the contract to any legally authorized and approved revision of such charge for this class of service at the exchange. *Re Farmers Independent Telephone Co. (2-U-1165.)*



Free Bulb Service Denied

PUBLIC Utility Commissioner Donald M. Livingston declined to order the Philadelphia Electric Company to resume its free bulb-replacement service, discontinued five years ago. Demand for restoration of the service was made by a Philadelphia attorney, Isaac Hassler, who said dropping of the exchange privilege had cost customers more than \$1,000,000 a year.

Bulbs now sold by the company, Hassler declared, are of inferior quality and

consume too much current. He asked a commission investigation of the company's interest, if any, in bulb manufacture. Frank M. Hunter, company counsel, denied Hassler's charges, and pointed out that when the exchange privilege was dropped rate cuts were made which saved \$1,800,000 a year.

Commissioner Livingston directed Hassler to present his request at Harrisburg before the entire commission, which is now investigating electric rates.



Other Important Rulings

THE Arizona commission ordered the elimination of the additional monthly charge for hand-set telephones. *Re Surcharge or Rate for Cradle Type or Hand Set (Docket No. 7046-E-567, Decision No. 9459).*

The California commission held that where truck carriers are permitted to maintain lower than normal rates for the purpose of meeting the rates of the rail lines and the services of the truck carriers include something that may be evaluated which the rail rates do not, additional charges must be provided. *Re*

Atchison, Topeka and Santa Fe Railway Co. (Decision No. 30410, Case Nos. 4264, 4088, 4145).

The North Carolina commission approved a pension plan for employees of a public utility company based on contributions under a pension trust agreement by the employer, such contributions to be irrevocable and to be used to purchase annuity insurance for employees qualifying under the plan. No deposits or payments were required of employees and the entire cost was to be borne by the employer. *Re Tide Water Power Co.*

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

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RECOMMENDATIONS OF COURTS AND COMMISSIONS



VOLUME 22 P.U.R.(N.S.)

NUMBER 3

Points of Special Interest

SUBJECT	PAGE
Relation of security issues to property values -	225
Equality of stated value for no-par value stock -	225
Affiliated servicing companies - - - -	233
Refunding of bank loans and mortgage bonds -	239
New construction as basis for securities - - -	239
Inductive interference with telephone line - -	248
Rates for commercial lighting and residential consumers - - - - -	252
Competition as remedy for service defects - -	259
Status of natural gas service under lease - -	265
Invalidity of Wisconsin Development Authority Act - - - - -	269
Discrimination in free interexchange service - -	278
Interpretation of certificate authorizing electric service - - - - -	287

These reports are published annually in five bound volumes, with an *Annual Digest*. The volumes are \$6.00 each; the *Annual Digest* \$5.00. A year's subscription to PUBLIC UTILITIES FORTNIGHTLY, when taken in combination with a subscription to the Reports, is \$10.00.

Titles and Index

TITLES

Bangor Water Co., Re	(Pa.) 239
Consolidated Edison Co. of New York, Re	(N. Y.) 239
Duke Power Co., North Carolina Merchants Asso. v.	(N. C.) 239
Duquesne Light Co., Re	(Pa.) 239
Kansas Electric Power Co., Jarbalo v.	(Kan.) 269
Lismore Coöperative Teleph. Co. v. Nobles Coöperative Electric	(Minn.) 240
Nobles Coöperative Electric, Lismore Coöperative Teleph. Co. v.	(Minn.) 240
Northern States Power Co., Re	(Wis.) 225
Phillips (T.W.) Gas & Oil Co., Public Utility Commission v.	(Pa.) 269
Plainfield Water Co., Re	(Pa.) 239
State ex rel. Wisconsin Development Authority v. Dammann	(Wis. Sup. Ct.) 269
West Coast Teleph. Co., Re	(Or.) 270



INDEX

- Accounting—fixed capital and net retirements, 239.
- Certificates of convenience and necessity—interpretation of provision as to other available service, 287.
- Commissions — jurisdiction transferred from predecessor Commission, 265.
- Consolidation, merger, and sale—acquisition of servicing company, 233; excessive price, 233.
- Constitutional law—delegation of powers to corporation, 269; department of government to execute laws, 269.
- Depreciation—creation of reserve out of surplus, 225; retirement theory disapproved, 239.
- Discrimination — Commission jurisdiction as affected by contract for free service, 278; free service and compensation other than money, 265; free telephone toll service, 278; service in exchange for right of way, 259; small and large commercial users, 252.
- Electricity—inductive interference by transmission lines, 248.
- Fines and Penalties — mitigating circumstances, 265.
- Franchises—necessity of obtaining, 259.
- Intercorporate relations—benefit from economies of servicing companies, 233.
- Legislature—quorum on vote to appropriate money, 269.
- Monopoly and competition—certificate grant to operating company, 259; failure of present utility to serve, 259.
- Public officers—incapacity of corporation to qualify, 269.
- Public utilities—branch operation of motor vehicle and equipment department, 233; company furnishing natural gas under lease provisions, 265.
- Rates—commercial lighting and residential electric consumers, 252; standard telephone tolls, 278.
- Security issues—bond discount, 225; bonds to finance stock acquisition, 239; disapproval when security holders not protected, 225; equality of stated value for no par value stock, 225; financing cost limited to issue authorized, 239; new construction as basis, 239; reasonableness of financing cost, 239; refunding of bank loans, 239; relation between stocks and bonds, 239; relation to property values, 225; sale price of bonds, 239.
- Service—discontinuance of unauthorized service, 265.
- Statutes—invalidity when passed without quorum, 269.
- Valuation—for purpose of issuing securities, 239.

RE NORTHERN STATES POWER CO.

WISCONSIN PUBLIC SERVICE COMMISSION

Re Northern States Power Company

[2-SB-97.]

Security issues, § 92 — Relation to property values.

1. The statutes contemplate that the amount of securities to be issued by any public service corporation shall not exceed the value of the company's assets, p. 229.

Depreciation, § 37 — Reserves — Creation out of capital surplus.

2. Depreciation reserve should not be created out of capital surplus until all available earned surplus has been used for the purpose, since depreciation is expense to be provided for through operations and a failure to provide enough depreciation results in showing too much earned surplus and a deficient depreciation reserve, p. 230.

Security issues, § 116 — Bond discount — As interest expense to be amortized.

3. Bond discount is not a part of the cost of property but is an interest expense to be amortized over the life of the bonds, p. 231.

Security issues, § 110 — No-par value stock — Stated value — Equality for all issues.

4. The same stated value per share should be determined for all no-par value common stock of a given corporation outstanding and proposed to be outstanding, and a corporation should not be permitted to place one stated value per share on common stock outstanding and a different stated value on shares proposed to be issued, p. 231.

Security issues, § 44 — Grounds for disapproving issue — Absence of protection to holders.

5. A certificate of authority cannot be issued authorizing the issuance of common stock in the absence of an affirmative finding, as required by § 184.06 of the statutes, that the financial condition, plan of operation, and proposed undertaking of the corporation, as set forth in its application, are such as to afford reasonable protection to the holders of the proposed securities to be issued, p. 232.

[January 27, 1938.]

APPPLICATION for authority to issue common stock without par value; dismissed without prejudice.

By the COMMISSION: The above-titled matter arises from an application of Northern States Power Company, a Wisconsin corporation, made pursuant to the provisions of Chap. 184 of the Wisconsin Statutes. The application was filed on January 7, 1938, and requests, in substance, (a) authority to issue 25,000 shares of common stock without par value in

WISCONSIN PUBLIC SERVICE COMMISSION

lieu of the present outstanding 25,000 shares of common stock of the par value of \$100 per share, and (b) 170,000 shares of common stock without par value for \$11,500,000 of the open account due Northern States Power Company, a Minnesota corporation, provided the remaining \$5,480,000 of the open account be canceled.

The application also requests authority to appropriate from the capital surplus of \$5,480,000, created by the proposed cancellation of indebtedness, \$3,000,000 to reserve for depreciation and \$2,480,000 to a reserve to be used to absorb, in whole or in part, the excess of book cost of property and assets over its historical cost when such historical cost is ascertained and approved by this Commission, provided that said reserve would be used first to absorb the excess of book cost over historical cost of property and assets acquired subsequent to July 16, 1923, before any charges for any excess of book cost over historical cost of property and assets acquired prior thereto.

Authority is likewise requested to transfer \$55,922.50 of the \$860,125 of bond discount now carried in the property accounts to unamortized debt discount and expense and immediately charge \$40,356.50, representing the expired portion thereof at December 31, 1937, to surplus, and to amortize the balance of \$15,566 over the remaining life of the bonds to which ap-

plicable. The remainder of the bond discount now carried in the property accounts, amounting to \$804,202.50, is proposed to be retained therein until such time as the property to which it is applicable is retired, and adjustment is proposed to retire any such bond discount as is applicable to property previously retired.

The application further requests that the Commission cancel its order dated July 14, 1932, restricting the payment of dividends on common stock and proposes that a policy with respect to dividends on common stock be adopted whereby no dividends in excess of 6 per cent per annum on the capital represented by such common stock will be paid so long as there remains on the books any amount of excess of book cost of property over the historical cost thereof that is not absorbed by the reserve of \$2,480,000 to be created, as explained above. It is proposed, further, that any earnings in excess of such dividends will be appropriated for writing off any such excess cost.

Balance sheets as of October 31, 1937, and income and surplus statements for the twelve months ended on that date, both on a corporate and on a consolidated basis, were submitted with the application. Condensed summaries prepared from the corporate statements are presented below as Tables I and II.

Assets
Property
Organic
Investment
Current
Other
Expense
Deferred
To
Liabilities
Common
Preferred
Funded
Indebted
Current
Deferred
Unadjusted
Retirement
Reserve
Contribution
Other
Earned
To
Operating
Deduct:
Operating
Appropriation
To
Net operating
Other income
To
Less amount
Gross income
Income distribution
Interest
Amortization
Interest
Other
Other
Interest
Net income
() Denotes
The
the application
attached
(1)
including
securities
Comparative
bonds and

RE NORTHERN STATES POWER CO.

TABLE I—BALANCE SHEET

Assets	
Property, plant and equipment	\$36,342,560.87
Organization	65,957.81
Investments	4,397,527.03
Current assets	2,358,500.23
Other deposits	800.00
Expense on sales of preferred stock	305,416.03
Deferred charges	678,012.89
Total assets	\$44,148,774.86
Liabilities	
Common stock	\$2,500,000.00
Preferred stock	5,000,000.00
Funded debt	15,735,000.00
Indebtedness to affiliated company	16,987,831.11
Current liabilities	1,261,165.16
Deferred liabilities	85,454.45
Unadjusted credits	157,875.78
Retirement reserve	823,461.03
Reserve for investments	313,821.00
Contributions for extensions	164,257.32
Other reserves	68,708.71
Earned surplus	1,051,200.30
Total liabilities	\$44,148,774.86

TABLE II—INCOME STATEMENT

Operating revenues	\$5,632,438.57
Deduct:	
Operating expenses	\$3,302,427.75
Appropriation for retirement reserve	392,038.87
Total	3,694,466.62
Net operating revenue	\$1,937,971.95
Other income (net)	381,175.19
Total	\$2,319,147.14
Less amortization of investment in subsidiary	41,842.80
Gross income	\$2,277,304.34
Income deductions:	
Interest on funded debt	\$890,200.00
Amortization of debt discount and expense	16,765.20
Interest on indebtedness to affiliated company	1,019,269.92
Other interest	2,313.12
Other deductions	6,951.80
Interest during construction—Cr.	(3,077.24)
Net income	\$344,881.54

() Denotes red figure.

The balance sheet submitted with the application had the following notes attached to it:

(1) Fixed assets are stated at cost, including \$8,985,800 par value of securities of Northern States Power Company (Wisconsin) issued or bonds assumed in connection with the

acquisition of properties, and \$860,-125 of bond discount and expense. Of this latter amount, \$55,922.50 represents bond discount and expense as to which provision for amortization is required by orders of the Public Service Commission of Wisconsin. At October 31, 1937, the expired portion of

WISCONSIN PUBLIC SERVICE COMMISSION

the latter amount totaled \$39,946.89 which is proposed to be charged to surplus.

The Public Service Commission of Wisconsin has undertaken a study of the property accounts of the company. This study has not yet been completed and the results thereof are subject to check by the company and to further discussion by the company with the Commission. As a result thereof certain substantial adjustments to its property, retirement reserve, and other accounts may be made which, if made, will reduce the book equity of its stock. But the amounts of such adjustments and the accounts to be affected are undeterminable at this time.

(2) The appropriations for retirement reserve have been made upon the basis of charging against income and crediting to retirement reserve an annual amount deemed to be adequate to cover retirement losses represented by the excess of cost over the net salvage value of fixed capital retired from service. These appropriations, however, do not purport to approximate a full provision for accrued depreciation on the basis of estimated lives of units of depreciable property.

(3) There are pending before the Wisconsin Tax Commission proceedings involving hearings upon objections to tax liabilities asserted in the assessment by the Commission of additional state income taxes for the years 1930 to 1933, both inclusive, in the aggregate amount of approximately \$339,000. The hearings have not been concluded and no final determination of the tax liability, if any, has been made. No provisions have been made by the company for these assessments.

22 P.U.R. (N.S.)

The provisions for state income taxes for the years 1934, 1935, 1936, and for the ten months ended October 31, 1937, have been made on a basis consistent with those for prior years, and the returns for those years are also subject to review by the Wisconsin Tax Commission.

(4) Dividends accumulated on the preferred capital stock at October 31, 1937, and not declared or paid amount to \$32.66 $\frac{2}{3}$ per share and aggregated \$1,633,333.34.

In case 2-U-657 (20 P.U.R. (N.S.), 293), involving a general investigation of the rates, rules, and practices of the company, which case is still pending before the Commission, an appraisal of electric property and an accounting report covering the results of an investigation of the company's records were introduced by members of the Commission's staff. Commission engineers and accountants are now engaged in an inventory and original cost analysis of the company's property. Although this work is not completed, such data as are available when considered in conjunction with appraisals and accounting analyses before the Commission in 2-U-657, *supra*, involving a general investigation of the company, indicate that the book value of the property and other assets of the company is grossly excessive and that the final results of the present investigation will show a value not in excess of \$30,000,000. Against such property and assets there is outstanding \$40,222,831 of bonds, advances, and capital stocks, or an excess of over \$10,000,000.

Certain factors which have caused such an excess can be evaluated and others are known to have had an ef-

RE NORTHERN STATES POWER CO.

fect. There is a deficiency of at least \$3,000,000 in depreciation reserve as indicated by the company's application to increase the reserve by this amount. Appraisals by the Commission's engineering department introduced in 2-U-657, *supra*, indicate that the deficiency is even greater. The accounts reflect a cost for the Cornell hydro plant of \$500,000 in excess of the purchase price approved by the Commission in its decision dated November 30, 1931, 1 Wis. P. S. C. R. 723. The property account contains \$860,125 of bond discount of which approximately \$647,000 should have been amortized by October 31, 1937. Construction fees of substantial amounts were paid to Kelsey-Brewer & Co. in an early period, and these fees have previously been held by this Commission to be allowable only in part, 25 Wis. R. C. R. 88, 138; 26 Wis. R. C. R. 407, 411, P.U.R.1922C, 193. Construction and management fees equal to 10 per cent of construction costs have been paid to Byllesby Engineering and Management Corporation, the predecessor of the present affiliated mutual service company, Public Utility Engineering and Service Corporation. These fees capitalized amounted to over \$1,000,000. The investment in common stock and advances of Chippewa Power Company, a subsidiary company, amounted to \$1,601,909 at December 31, 1936, although the company's appraisal of the property introduced in 2-U-657, *supra*, showed a value based on reproduction cost new less depreciation of \$1,831,340, and there is \$1,800,000 of bonds outstanding against the property. Hence, this investment has but little equity back of it. The investment in common stock and ad-

vances of Eau Claire Dells Improvement Company was \$2,181,347 at December 31, 1936, although the company's appraisal introduced in 2-U-657, *supra*, showed a value of \$1,507,246 for this property, based on reproduction cost new less depreciation.

[1] Under the provisions of § 184.04 of the statutes, no capital stock shall be issued by any public service corporation otherwise than for money, property, or services actually received by it, equal to the par or stated value of such stock. Section 184.06 requires, in part, that the Commission determine the value of the consideration to be received for such stock if it is to be issued for any other consideration than cash. It appears clear that the statutes contemplate that the amount of securities to be issued by any public service corporation shall not exceed the value of the company's assets. This recognizes the sound principle of finance that capitalization should have a direct relation to the value of the property it represents. In a practical sense, therefore, it is necessary to determine the value of the assets of a corporation for security issue purposes and compare therewith the total amount of securities now outstanding to determine the amount of new securities to be issued.

According to the information submitted with the application, and as stated in Table I, the company now has the following amounts of securities outstanding:

Bonds	\$19,413,000
Less bonds held as treasury securities	3,678,000
Balance of bonds outstanding	\$15,735,000
Preferred stock	5,000,000
Common stock	2,500,000
Total securities now outstanding	\$23,235,000

WISCONSIN PUBLIC SERVICE COMMISSION

As stated above, the Commission is now engaged in determining the original cost of the property of this company. The final determination of this fact will supply a basis for a definite finding of the maximum amount of securities which may be issued against such assets. Based upon the present status of such investigation and other data in case 2-U-657, *supra*, the Commission is satisfied that the value of the assets will not exceed \$30,000,000 and a lower figure may be determined. We will, therefore, use this maximum figure for the purpose of this case without indicating in any way that it represents a final determination of the value of the assets. This maximum figure is used solely to indicate why the prayer of the pending application must be denied. It is obvious that, based on a \$30,000,000 asset value, the company should not be allowed to issue more than \$6,765,000 of additional common stock in lieu of the \$11,500,000 of common stock contemplated by the pending application, in order to be fully capitalized. If, therefore, not more than \$6,765,000 of additional common stock should be authorized to be issued in exchange for \$16,987,831 of unsecured obligations to the affiliated company, it is clear that not less than \$10,222,000 in lieu of \$5,480,000 of such unsecured obligations should be canceled by Northern States Power Company, a Minnesota corporation.

If the Commission were to grant the prayer of this application, it would, in effect, be in the position of permitting innocent prospective purchasers to invest in securities of a corporation which the Commission knows is grossly overcapitalized. (Dane county cir-

22 P.U.R. (N.S.)

cuit court in Wisconsin Fuel & Light Co. v. Railroad Commission, decided August 5, 1927.)

It is our opinion that the Commission should embrace every opportunity that presents itself to eliminate overcapitalization by public service corporations operating in this state. This is especially true, as in the pending case, when the method employed in reducing or eliminating the overcapitalization does not affect the credit of the corporation or injure existing security holders. In the instant case, the findings by the Commission will improve the financial structure, will benefit all existing security holders, and should improve the credit of the corporation.

[2] The evidence as to the value of the company's assets is sufficient in itself to warrant denial of the application. However, there are certain other matters in the application concerning which comment seems appropriate. It is proposed, out of the \$5,480,000 of capital surplus to be created by cancellation of an equal amount of indebtedness by Northern States Power Company of Minnesota, to transfer \$3,000,000 to depreciation reserve, and \$2,480,000 to another reserve to be used to absorb the excess of book cost of property over its original cost when determined. But it is proposed to retain the present earned surplus as shown by the books. This is erroneous. Depreciation reserves should not be created out of capital surplus until all available earned surplus has been used for the purpose. Depreciation is expense to be provided for through operations. A failure to provide enough depreciation results in showing too much earned

RE NORTHERN STATES POWER CO.

surplus and a deficient depreciation reserve. To make up the reserve deficiency by appropriations of capital surplus without using available earned surplus would create an inaccurate and misleading financial statement, as thereby earned surplus would be shown where none existed in fact.

[3] The application proposes, with respect to \$804,202.50 (out of a total of \$860,125) of bond discount now carried in the property accounts, to retain this amount in property investment and to write it off as the property is retired, agreeing, however, to write off such portion as is applicable to property previously retired. Except for such portion as may be applicable to the construction period, bond discount is not a part of the cost of property but is an interest expense to be amortized over the life of the bonds. In the auditor's certificate of Arthur Andersen & Co. dated November 15, 1936, with respect to the Northern States Power Company of Wisconsin, contained in the prospectus of Northern States Power Company of Minnesota, dated February 11, 1937, it is stated that "The company has made no provision for the amortization of discount and expense aggregating \$860,125 on first and refunding 5 per cent 30-year gold bonds, due May 1, 1944. In our opinion, the generally accepted accounting practice is to amortize such discount and expense over the life of the issue. At December 31, 1935, the expired portion of this discount and expense amounted to \$586,581.47, of which \$32,825.23 was applicable to the year 1935."

The company's proposal with respect to the bond discount is not only contrary to generally accepted accounting

practice but is contrary to the regulations governing bond discount contained in the effective system of accounts for electric utilities prescribed by this Commission and applicable to the company's accounting. The company is referred to this system of accounts for full instructions concerning the disposition of the bond discount. Suffice to say that the Commission cannot approve its retention in the property accounts.

[4] In the first paragraph of this opinion, reference was made to the proposal of the company (1) to change the \$2,500,000 common stock now outstanding from 25,000 shares of the par value of \$100 per share to 25,000 shares of no-par value stock, and (2) to issue 170,000 additional shares of no-par value common stock for \$11,500,000. The effect of this proposal is to place a stated value of \$100 per share on the common stock now outstanding and a different stated value, i.e., \$67.65 per share, on the 170,000 shares proposed to be issued. This proposal is unique in the history of security regulation in Wisconsin, and the application is silent as to any justification of the company for this unusual request. There is nothing in the record now before us to indicate that there is, or will be, any difference in the voting powers, dividends, or other characteristics between the shares of \$100 stated value and the shares of \$67.65 stated value.

The long-established practice of this Commission has been to determine the same value per share for all common stock of a given corporation outstanding and proposed to be outstanding. We see no reason to change this policy in the case now before us.

WISCONSIN PUBLIC SERVICE COMMISSION

It is, of course, elementary that the stated value of a class of no-par value stock is determined by dividing that portion of the net worth of a corporation assignable thereto by the number of shares of stock proposed to be outstanding. The result is a stated value for each and every share and not one stated value for this share and a different stated value for that share.

We have indicated herein that \$6,-765,000 of common stock is the maximum amount which would be authorized by the Commission based on the evidence now before us. This stock, together with the \$2,500,000 of common stock now outstanding would amount to \$9,265,000. If the company desires to change its common stock from a par value to a no-par value the Commission will entertain an application to issue 67,650 shares of such no-par value stock at the same stated value as for the common stock now outstanding.

The pending application is now before the Commission because a financial house cleaning has become necessary. The Commission welcomes the opportunity to state in a formal decision what has been stated informally for a number of years to representatives of the applicant, namely, that a substantial part of the advances should be canceled and common stock issued for the balance.

[5] Based on the investigation made in connection with this proceeding, the Commission adopts the statements contained in the body of this decision as its findings and hereby determines that the financial condition, plan of operation and proposed under-

takings of the corporation, as set forth in the pending application, are not such as to afford reasonable protection to the holders of the proposed securities to be issued. In the absence of an affirmative finding as required by § 184.06 of the statutes, a certificate of authority cannot be issued. It follows, therefore, that the application must be denied.

This denial will be without prejudice to the right of the company to file another application to the Commission for the purpose of refinancing the \$16,987,831 of indebtedness due to affiliated company which provides, in part, as follows:

1. That at least \$10,222,000 of such book indebtedness be canceled.

2. That the entire earned surplus of the company be utilized in establishing an adequate depreciation reserve before any amount of capital surplus is used for such purpose.

3. That the issuance of additional common stock in exchange for the balance of the amount of indebtedness be made at the same par or stated value per share as is, or may be, provided for the \$2,500,000 of common stock now outstanding.

This procedure is believed to be consistent with the decision of the Wisconsin supreme court in *Central Steam Heat & Power Co. v. Railroad Commission*, 192 Wis. 595, 599, 600, P.U.R.1927D, 249, 213 N. W. 298.

It is therefore *ordered* that the application in the above-entitled matter be and the same is hereby denied without prejudice to the right of the applicant to file another application as stated in the preceding paragraph.

RE DUQUESNE LIGHT CO.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re Duquesne Light Company et al.

[Application Docket No. 34474.]

Public utilities, § 129 — Branch operation — Motor vehicles and related equipment.

1. Motor vehicles and related equipment are essential to electric, gas, and transportation utilities in the ordinary conduct of their operations, not only for the proper maintenance and repair of their operated properties, but also for certain classes of new construction, for the collection of accounts, and for interdepartmental communication, and they are a legitimate direct branch of utility operations; and this being true, it follows that ownership of, and the obligation to maintain and repair, automotive equipment belongs in the utilities mentioned, p. 235.

Intercompany relations, § 15 — Servicing companies — Benefit from economies.

2. Economies that are possible from the efficiency of a consolidated servicing system should accrue wholly to the benefit of the ratepayers of the participating public utilities instead of the profits being turned over to a holding company, p. 235.

Intercompany relations, § 15 — Servicing companies — Ownership by operating utilities — Conditions.

3. Accrual of the whole benefit of a consolidated servicing system to the ratepayers of the participating public utilities, if a servicing company is to do the servicing, can result only under the following conditions: First, that the public utilities own, in proper proportions, all the capital stock of the servicing company; secondly, that the charges of the servicing company for services be fair and reasonable; thirdly, that the profits, if any, of the servicing company in excess of a fair return be distributed, in proper proportions, among the public utilities as refunds of overcharges for services; fourthly, that the public utilities credit such refunds to the operating expense and the fixed capital accounts to which payments for services were charged, or, if that is not practicable, to an appropriate operating revenue account; and fifthly, in the present case, that the automotive equipment which is used exclusively, or almost exclusively, by a particular utility be owned by that utility, and that the business of the servicing company be restricted to the maintenance, repair, and storage of such utility-owned equipment and to the ownership and rental of motor vehicles and related equipment used in common by two or more of the participating public utilities, p. 235.

Consolidation, merger, and sale, § 20 — Acquisition of servicing company — Excessive price for stock.

4. Purchase of the stock of a servicing company by operating utilities which are serviced should not be approved when the operating companies propose to pay to their parent company \$315,000 in cash while the parent company paid only \$165,000 for the stock and, moreover, during its period of own-

PENNSYLVANIA PUBLIC UTILITY COMMISSION

ership received rich dividends made possible only through unconscionably high service charges levied on the public utility subsidiaries, p. 236.

(LIVINGSTON, Commissioner, concurs in separate opinion.)

[February 8, 1938.]

APPPLICATION by public utility companies for approval of the purchase by each company from a parent corporation of a proportionate share of the outstanding stock of a servicing company; application denied.

By the COMMISSION: The joint application of Duquesne Light Company, Equitable Gas Company, and Pittsburgh Railways Company, all operating public utilities and subsidiaries of Philadelphia Company, for a certificate of public convenience evidencing our approval of the acquisition by the three public utilities from Philadelphia Company of all the outstanding common capital stock of Equitable Auto Company, is before us for consideration. The application was filed on April 20, 1936; a hearing was held on June 3, 1937; and additional information subsequently requested by us has been supplied. No protests have been filed.

Equitable Auto Company, whose capital stock petitioners purpose acquiring, was incorporated under the laws of Pennsylvania on November 18, 1919, and is engaged principally in the business of renting motor vehicles and auxiliary equipment to, and servicing motor vehicles and auxiliary equipment for, the operating subsidiaries of Philadelphia Company, including, among others, petitioners and Pittsburgh Motor Coach Company.

Equitable Auto Company has 4,500 shares of common capital stock outstanding, of a par value of \$100 a share, or a total par value of \$450,000. All this stock, the record indi-

cates, has been held by Philadelphia Company since the dates of original issue thereof, \$165,000 par value thereof having been issued to Philadelphia Company for cash, and the other \$285,000 par value having been issued to Philadelphia Company in two stock dividends—one of \$135,000 on October 15, 1925, and the other of \$150,000 on January 11, 1932. The total \$450,000 par value of stock Philadelphia Company thus acquired at a cost of only \$165,000.

Petitioners here seek our approval of the purchase of all said stock from Philadelphia Company for a cash consideration of \$315,000, or at a price of \$70 a share, that being the value at which the stock is recorded in the accounts of Philadelphia Company. Duquesne Light Company would acquire \$270,000 par value of the stock, and Equitable Gas Company and Pittsburgh Railways Company each would acquire \$90,000 par value. The amount of stock which each company would acquire is roughly based on the amount of the payments which each makes to Equitable Auto Company for services. Pittsburgh Motor Coach Company, a wholly owned subsidiary of Pittsburgh Railways Company and a fairly large patron or customer of Equitable Auto Company,

RE DUQUESNE LIGHT CO.

would not participate in the ownership of the stock.

Ownership by petitioners of the capital stock of Equitable Auto Company would be in the public interest, petitioners aver, because ownership of the stock would then be vested in the companies for whom Equitable Auto Company principally furnishes automotive equipment and services, and petitioners could then directly control the operating policies of Equitable Auto Company and would receive, as dividends, any profits which Equitable Auto Company would make. It is further averred that centralization in Equitable Auto Company of the ownership and servicing of automotive equipment used by petitioners effects substantial economies.

[1] Motor vehicles and related equipment are essential to petitioners in the ordinary conduct of their operations, not only for the proper maintenance and repair of their operated properties, but also for certain classes of new construction, for the collection of accounts, and for interdepartmental communication. They are thus as essential to the ordinary conduct of business as a generating station, a gas well, or a street car barn. They are, in short, a legitimate, direct branch of utility operations.

This premise being true, it follows that ownership of and the obligation to maintain and repair automotive equipment indubitably belong in petitioners. It perhaps makes little difference whether the three petitioners each operates its own automotive servicing unit, or whether they combine their several units, for efficiency and economy, into a single servicing unit.

[2, 3] Utility holding companies, recognizing the efficiency to be had, have in the past two decades developed the servicing-company idea to a very high degree. That development, unfortunately, has not always made for efficiency, and very seldom for economy. Efficiency and economy undoubtedly have been and are inherent in the plan for Equitable Auto Company, but the economies effected in the past have been turned into huge profits (averaging 45 per cent per annum on the original investment) to the holding company.

To this servicing system we object. Believing as we do in the efficiency of a consolidated servicing system, under such circumstances as are here present, we also believe that the economies that are possible thereunder should accrue wholly to the benefit of the ratepayers of the participating public utilities.

This can be done only under the following conditions, if a servicing company is to do the servicing: First, that the public utilities own, in proper proportions, all the capital stock of the servicing company; secondly, that the charges of the servicing company for services be fair and reasonable; thirdly, that the profits, if any, of the servicing company in excess of a fair return be distributed, in proper proportions, among the public utilities as refunds of overcharges for services; fourthly, that the public utilities credit such refunds to the operating expense and the fixed capital accounts to which payments for services were charged, or, if that is not practicable, to an appropriate operating revenue account; and fifthly, in the present case, that the automotive equipment

PENNSYLVANIA PUBLIC UTILITY COMMISSION

which is used exclusively, or almost exclusively, by a particular utility be owned by that utility, and that the business of the servicing company be restricted to the maintenance, repair, and storage of such utility-owned equipment and to the ownership and rental of motor vehicles and related equipment used in common by two or more of the participating public utilities.

The present application does not meet all these requirements, and is, in particular, so defective in two vital, elemental respects that we must withhold our approval of the application.

The three petitioners are not all the public utilities in the Philadelphia Company system which patronize Equitable Auto Company. A public utility which has paid fairly large amounts to the servicing company in the past ten years is Pittsburgh Motor Coach Company, a wholly owned subsidiary of Pittsburgh Railways Company, one of the petitioners. The coach company having been a patron of the servicing company in the past, it is reasonable to assume, in the light of the observations set forth above, that it will continue to be a patron in the future under the plan proposed in the application. But what benefit would it receive from such an arrangement? What would become of the excess profits, if any, to be derived from it? What economies would be effected by the servicing company which would reflect to the benefit of bus riders? The answers are the same to each question. There would be no benefit to Pittsburgh Motor Coach Company; there would be no excess profits returned to that company; there would be no economies reflected to the bene-

fit of bus riders. The three petitioners alone would benefit, through the receipt of dividends, from any excessive service charges which the servicing company might make to the coach company.

Other subsidiaries of Philadelphia Company which would not participate in the ownership of the stock of Equitable Auto Company contribute so little business to that company that it is very doubtful whether any benefit would accrue to their patrons if they did participate. They therefore will be excluded from consideration.

[4] The other elemental matter of which we cannot approve is the amount of the consideration which petitioners would pay—would be forced to pay, rather—for the stock of Equitable Auto Company. That stock, we have seen, has a par value of \$450,000, for which Philadelphia Company paid only \$165,000. Philadelphia Company would sell the stock to petitioners for \$315,000 in cash, or at a clear profit of \$150,000. But that is not all. In the 17-year period 1920-1936, Philadelphia Company received \$1,274,716.82 in cash dividends—an average of approximately \$75,000 a year—on its investment of only \$165,000 in Equitable Auto Company. Such rich dividends clearly were possible only through unconscionably high service charges levied on the public utility subsidiaries of Philadelphia Company under the guise of furnishing a more efficient and economical service through a servicing company. This is truly an amazing example of the burden which has been placed upon ratepayers of the public utilities through the device of a servicing company. For us to

RE DUQUESNE LIGHT CO.

countenance such profits to a holding company through the device of a servicing company would also be unconscionable and highly improper. Although we cannot, unfortunately, order full restitution of the money thus siphoned from the public utilities, yet the least that Philadelphia Company should do in partial restitution would be to transfer the stock to petitioners and to Pittsburgh Motor Coach Company for a nominal consideration.

Even such partial restitution would not wholly correct the situation for the future. The new contracts between Equitable Auto Company and the companies to whom it furnishes services, which became effective January 1, 1937, provide that the services shall be supplied at cost plus an amount sufficient, and only sufficient, to pay an annual dividend of 6 per cent on the average par value of the outstanding capital stock of Equitable Auto Company. The par value of that stock presently outstanding, we have seen, is \$450,000. Now, if we should approve the application, the utility owners of the stock presumably would credit the 6 per cent dividends received on \$450,000 par value of the stock to nonoperating revenue, whereas all dividends received in excess of 6 per cent on the original investment of \$165,000 in the stock should be credited instead to the operating expense and the fixed capital accounts to which payments for services were charged, or, if that should be impracticable, to operating revenue. This situation could be corrected by a revision of the service contracts to provide that services shall be furnished at cost plus an amount sufficient, and only sufficient, to pay a dividend of 6

per cent on the original investment of \$165,000 in Equitable Auto Company.

It may well be suggested here that a servicing company is not the only device, under the circumstances here present, by which ratepayers could reap the benefits of unified service. It occurs to us that Duquesne Light Company, the principal user of automotive service, could undertake to provide such service not only for itself but also for its affiliated public utilities. Under such an arrangement each public utility would own the equipment which it exclusively uses, and Duquesne Light Company would own the commonly used equipment, and would charge the other public utilities for services at the actual cost thereof plus a fair return on its investment in commonly used equipment, and would credit the amounts of such charges to operating revenue; the investment of Duquesne Light Company in commonly used equipment to be, of course, considered in fixing fair and reasonable rates for the consumers of Duquesne Light Company. If such a plan is not feasible, and if ratepayers are not to benefit from a unified service conducted by a servicing company, then each public utility might better own and service all the automotive equipment which it uses.

The matters and things involved having been heard and fully considered, we find and determine that the purchase by Duquesne Light Company, Equitable Gas Company, and Pittsburgh Railways Company of the entire issued and outstanding common capital stock of Equitable Auto Company, under the proposed terms and

PENNSYLVANIA PUBLIC UTILITY COMMISSION

conditions and existing circumstances, is not necessary or proper for the service, accommodation, convenience, or safety of the public; therefore,

Now, to wit, February 8, 1938, it is *ordered*: That approval of the purchase by Duquesne Light Company, Equitable Gas Company, and Pittsburgh Railways Company of the entire issued and outstanding common capital stock of Equitable Auto Company, be and is hereby denied.

Commissioner Livingston files a concurring opinion.

LIVINGSTON, Commissioner, concurring: The Commission has denied the instant application for the reasons outlined in the Commission's report and order. I concur in this action but for different reasons.

I could discover nothing in the testimony nor the exhibits which would indicate that the proposed purchase of the stock of the Equitable Auto Company by the three applicant companies would be in the public interest.

Approval of the application would be contrary to the public interest, in my opinion, for the following reasons:

I am opposed to investments of operating utilities in subsidiary companies whose business is not directly connected with the furnishing of the primary service for which the operating utility was organized. I feel that operating utilities should confine their activities to the primary function for which they were organized, such as the sale of electric current, gas, water, steam heat, transportation, etc. The organization of subsidiary companies for the purpose of carrying on

22 P.U.R. (N.S.)

a secondary function, such as the purpose of the Equitable Auto in the instant application, or for the sale of appliances, inevitably involves the capital of the operating utility to such an extent that it is no longer able to meet the demands which the exercise of its primary function should develop. There can be no reasonable objection to any operating utility owning and using whatever equipment is necessary to enable it to render the service for which it was organized. In this instance, Equitable Auto Company owns equipment which is useful in the electric business of Duquesne Light Company, other equipment useful in the gas business of the Equitable Gas Company, and other equipment useful in the passenger transportation business of Pittsburgh Railways Company and Pittsburgh Motor Coach Company. This does not necessarily imply that all of the equipment is useful in the service of any one of the operating utilities, and for that reason investment in the stock of Equitable Auto Company, or purchase by any one of the three applicant companies of all of the equipment presently owned by Equitable Auto Company, would not be pertinent to the primary service. From another angle, the organization of subsidiary companies permits diversion by the directors of an operating utility, without approval of stockholders, of funds which were originally subscribed for one purpose, or of earnings from the exercise of that primary purpose, which funds or earnings should be subject to the control of the stockholders.

It may be argued that stockholders do control such earnings through

RE DUQUESNE LIGHT CO.

their board of directors. That this is not so is evidenced by the operation of the Federal tax on undistributed profits, which has brought forth howls of anguish from boards of directors accustomed to doing what they choose with stockholders' earnings, after paying some nominal dividend. I have heard no expressions of dismay from stockholders whose dividends were increased through the operation of the Federal tax on undistributed profits.

I believe that strict adherence to the policy of requiring operating utilities to confine their activities to the exer-

cise of their primary function would go far towards simplification of regulation, reduction in cost of operation and corresponding reduction in rates, and the protection of investors generally, by preventing operating utilities from becoming a catchall for all the cat-and-dog stocks and bonds which some promoters have originated in the past.

Various state and Federal Commissions are presently engaged in the stupendous task of unraveling the weird corporate structures which such practices have developed in the past.

I think it is time to call a halt.

NEW YORK DEPARTMENT OF PUBLIC SERVICE, STATE DIVISION, PUBLIC SERVICE COMMISSION

Re Consolidated Edison Company of New York, Incorporated

[Case No. 9262.]

Security issues, § 113 — Financing cost — Limitation to issue authorized.

1. Only the expenses relating to an issue of bonds can be charged to it, and all costs relating to a former application for approval of a proposed larger issue (including the immediate issue), particularly those that have to do with proposed refunding now abandoned, should be charged to surplus, p. 242.

Security issues, § 115 — Financing cost — Reasonableness.

2. Any costs of financing a bond issue in excess of reasonable amounts should not be paid, and if they are or have been paid, they may not be charged to the cost of the issue, p. 242.

Security issues, § 81 — Refunding of bank loans — Purpose of bank loans.

3. Purposes for which bank loan funds were used must be determined before the Commission can approve a bond issue for the purpose of funding the bank loans, p. 243.

Security issues, § 57 — Bonds to finance stock acquisition.

4. Senior securities of a holding company should not be substituted for junior securities of an operating company through the issuance by a holding

NEW YORK DEPARTMENT OF PUBLIC SERVICE

and operating company of bonds to fund bank loans negotiated for the purpose of purchasing stock of a subsidiary, p. 244.

Security issues, § 99 — Relation between stocks and bonds.

5. No company should be capitalized wholly through the issuance of bonds and debentures, but there ought to be in every company and every system a substantial stock interest, p. 244.

Security issues, § 81 — Purpose — Refunding mortgage bonds.

6. An amount representing bank loans the proceeds of which were used to pay off real estate second mortgage bonds is a proper item for refunding by issuance of bonds, p. 245.

Security issues, § 81 — Purpose — Refunding — Mortgage bond payments.

7. The amount of a bank loan used for decreasing long-term debt by paying off mortgage bonds is a proper item for refunding through the issuance of bonds, p. 245.

Valuation, § 51 — For purpose of security issues — Additions to plant accounts.

8. An assumption, in determining a proper basis for issuance of debentures, that the value of a growing plant increases to the full extent of the increase in the plant accounts is unwarranted, p. 245.

Security issues, § 87 — Amount — Increase in plant accounts.

9. Even assuming that the value of a growing plant increases to the full extent of the increase in the plant accounts, it does not follow that a company should issue mortgage bonds, debentures, or even stock to the full extent of the plant increase, since there are other important factors to be considered even apart from changes in current and accrued assets and liabilities, p. 245.

Accounting, § 14 — Fixed capital — Net retirements.

10. Fixed capital increase should not be determined by deducting only the estimated net charges to retirement reserve, but the net fixed capital withdrawals themselves should be deducted, p. 245.

Depreciation, § 34 — Reserves — Retirement theory.

11. The Commission has definitely rejected the retirement theory as a basis for protecting a company's assets; in a growing plant, when the actual cost of the operating property is increasing from any cause, the annual decline in value due to depreciation will as a general proposition exceed the annual retirements, p. 247.

Security issues, § 87 — Amount — Net additions — Accruing depreciation.

12. The proper method for determining the funds to be raised for new construction, additions, and betterments by the issuance of additional securities is to deduct from the total cost of such proposed expenditures the accruing depreciation (the decline in value of the existing property during the period due to all causes), plus any net salvage received, from plant retired, p. 247.

Security issues, § 52 — New construction as basis — Availability of depreciation reserve.

13. Issuance of securities to provide funds for new construction would be unnecessary and improper when funds are available through the depreciation reserve, and under such circumstances the Commission could not legally certify, as required by law, that they are "necessary," p. 247.

RE CONSOLIDATED EDISON CO. OF NEW YORK, INC.

Security issues, \$ 106 — Sale price — Bonds.

14. Issuance of debentures for refunding and reimbursement purposes was authorized under an arrangement with financial houses whereby the debentures would yield to the company $99\frac{3}{4}$, the amount being allowed the underwriters not to exceed 2 points, p. 248.

[January 25, 1938.]

PETITION for authority to issue debentures for refunding and reimbursement purposes; issuance of debentures authorized.

APPEARANCES: Whitman, Ransom, Coulson & Goetz (by William L. Ransom, Robert E. Coulson, Richard Joyce Smith and Henry S. Reeder), New York city, Attorneys for Consolidated Edison Company of New York, Inc.; Paul Windels, Corporation Counsel (by Harry Hertzoff, Assistant Corporation Counsel), New York city, for the city of New York; John A. Trinchere, representing Utility Consumers League, New York city.

MALTBIE, Chairman: The Consolidated Edison Company of New York, Inc., initially requested authority to issue \$80,000,000 aggregate principal amount of debenture bonds. According to the petition verified August 12, 1937:

"XII. The moneys derived from the sale of the said debentures aggregating approximately \$80,000,000, are to be used for the following purposes:

"(a) To the retirement of \$60,000,000 principal amount of your petitioner's 20-year $4\frac{1}{2}\%$ gold debenture bonds, due June 1, 1951, requiring (exclusive of redemption premium) \$60,000,000

"(b) To the partial reimbursement of moneys actually expended . . . for the acquisition of property and the construction . . . of plant and distributing system and for other purposes during the period from December 31, 1931, to June 30, 1937, and not secured or obtained from the issue of stocks, bonds, notes, or other evidences of indebtedness to the extent of, approximately 20,000,000"

The first hearing on this petition was held September 1, 1937; and subsequently, the company submitted data requested at the hearing.

Shortly thereafter, the company filed an amended and supplemental petition (verified October 12, 1937) requesting the right to withdraw without prejudice the application to issue and sell \$60,000,000 of debentures for refunding purposes and asking authority to issue \$30,000,000 of 20-year debentures (in place of the \$20,000,000 called for in the original petition).

Terms of Proposed Debentures

The proposed securities were to be 20-year debentures of one series dated not later than January 1, 1938, to bear interest at a rate not exceeding $3\frac{1}{4}\%$ per cent per annum and to be issued not later than January 31, 1938, through responsible investment houses at not less than two points below the price at which the debentures were to be sold by the underwriters to the public. The company subsequently filed a copy of the proposed indenture as of January 1, 1938, between itself and the City Bank Farmers Trust Company as trustee and copies of the prospectus and registration statement submitted to the Securities and Ex-

NEW YORK DEPARTMENT OF PUBLIC SERVICE

change Commission, and several revisions thereof.

According to the revised statements the securities proposed are "Twenty-Year 3½ per cent Debentures, Series Due 1958," dated as of January 1, 1938, and maturing January 1, 1958, redeemable at the option of the company as a whole at any time or in part upon any semi-annual interest date, January and July 1st, upon not less than thirty days' prior published notice, as follows, exclusive of accrued interest:

For the period up to and including January 1, 1943 at \$106
and thereafter up to and including January 1, 1948 at \$104
and thereafter up to and including January 1, 1953 at \$102
and thereafter up to and including January 1, 1956 at \$101
and thereafter to maturity at \$100

The company unqualifiedly promises to pay interest semi-annually upon January 1st and July 1st of each year and to pay the principal upon maturity or in excess of principal if called before maturity. In event of default, the trustee is entitled to recover judgment against the company for the whole amount and to issue execution therefor against the whole or any part of the real or personal property of the company. Thus, the debenture holders in this case will have more rights than where payments are made when, as, and if earned.

[1,2] There was included in the registration statement the following schedule of expenses to be incurred in connection with the proposed issue of debentures:

Federal stamp taxes	\$30,000
Printing registration statement, debentures, etc.*	41,550
Accounting services*	42,000
Legal services*	35,000
Authentication and delivery by trustee*	25,900
Engineers' services*	6,000
Public Service Commission filing fee	8,410
Public Service Commission assessment of costs*	1,000
Securities and Exchange Commission filing fee	3,150
Stock Exchange listing fee	3,600
Miscellaneous*	1,000
	<hr/> \$197,610

* Estimated

Some of the foregoing expenses are fixed by law, rule, or regulation over which the company has no control. Others, however, including most of the estimated figures seem unnecessarily large. We are not convinced of the necessity of such expenses. Further, only the expenses relating to this issue can be charged to it; all costs relating to the former \$80,000,000 application, particularly those that have to do with the \$60,000,000 proposed refunding now abandoned should be charged to surplus. Any costs in excess of reasonable amounts should not be paid, and if they are or have been paid, they may not be charged to the cost of this issue. Inasmuch as no details have been submitted in connection with these estimates and insufficient time is available in which to investigate these items, the Commission retains supervision and control of the amounts finally to be charged to debt discount and expense through a provision in the order.

Purposes of Debentures

The stated purposes for which the proceeds were to be used, according to the amended petition, were:

"VI. The moneys derived from the

RE CONSOLIDATED EDISON CO. OF NEW YORK, INC.

sale of the said debentures, to aggregate approximately \$30,000,000, are to be used by the petitioner for the acquisition of property; the construction, completion, extension, or improvement of its plants and distributing system; the discharge or lawful refunding of its obligations; and the reimbursement of moneys actually expended from income or from other moneys in the treasury of the corporation not secured or obtained from the issue of stocks, bonds, notes, or other evidences of indebtedness of the corporation, for any of the above-stated purposes as provided by law, including new capital for current and prospective requirements. The petitioner needs and requires, for the carrying

board of trustees, testified (as later set forth in registration statements) that \$15,000,000 of the \$30,000,000 were desired for the purpose of funding outstanding bank loans, and the remainder for the acquisition of property and the construction, completion, extension, and improvement of the plants and distribution system.

Obviously, it was necessary to determine the purposes for which the bank loan funds were used before the Commission could approve this part of the proposed security issue.

Data submitted by the company, supported by balance sheet details, indicated the following as covering the use of funds represented by the bank loan:

(1) Securities of affiliated companies acquired in 10-month period:		
80,007 shares of no par value common stock of Consolidated Telegraph and Electrical Subway Company	\$4,000,350.00	
83,649 shares of no par value common stock of New York Steam Corporation	2,696,437.26	
Total		\$6,696,787.26
(2) Decrease in long-term debt during 10-month period:		
First consolidated 5 per cent gold mortgage bonds of the New Amsterdam Gas Company, due 1948—face amount	\$764,000.00	
Real estate second mortgage bonds	9,500.00	
Total		773,500.00
(3) Net increase in fixed capital and construction work in progress during 10-month period		
		7,786,853.19
Total		\$15,257,140.45

on of its business, the use of the proceeds of the proposed issue and sale of \$30,000,000 aggregate principal amount, of its said debentures, for the purposes respectively above stated, as may be determined herein."

[3] Three scheduled hearings (October 21st, 29th, and November 5th) were adjourned at the request of the company. Finally, on December 1, 1937, a hearing was held at which Mr. Floyd L. Carlisle, chairman of the

The \$15,000,000 bank loan was made on October 11, 1937, only about twenty days before the close of the 10-month period under consideration, and technically speaking, a considerable portion had not been used up to October 31, 1937. The company's statement regarding this loan must be considered on the assumption that the treasury was being reimbursed for expenditures previously made.

It is practically impossible to cor-

NEW YORK DEPARTMENT OF PUBLIC SERVICE

relate the source with the disposition of funds during any given period. In this instance, the situation is particularly complicated. But in view of other considerations, it is now unnecessary to do so.

Security Investments

[4, 5] Regarding the first item in the above summary, it should be noted that the Consolidated Edison Company acquired (besides seven shares from directors) 80,000 shares of Subway Company common stock by cancellation of \$4,000,000 of advances made prior to January 1, 1937. Apart from this, the Consolidated Edison Company was repaid \$7,300,000 in cash by the Subway Company but advanced \$7,800,000, a net cash increase of \$500,000 in advances during the 10-month period.

The courts have held (*New York v. Prendergast* [1922] 202 App. Div. 308, 195 N. Y. Supp. 815) that the Public Service Commission has no regulatory jurisdiction over the corporations maintaining electrical subways in New York city. The Consolidated Telegraph & Electrical Subway Company has not in recent years filed reports with this Commission, and the papers submitted in the instant proceeding, both formally and informally, fail to disclose information as to the financial status of the Subway Company.

The 83,649 shares of common stock of the New York Steam Corporation were acquired through the National City Bank of New York at a reported cost of \$2,696,437.26, or approximately \$32 per share, and 35 additional shares were acquired in November, 1937, at \$25 per share. The

22 P.U.R. (N.S.)

major portion, almost \$2,347,000, was expended during the last five days of April, 1937, about which time (April 28th) a bank loan of \$2,500,000, subsequently repaid, was made.

The total investment of Consolidated Edison Company in New York Steam Corporation as set forth by the balance sheet as of October 31, 1937, was \$24,204,516.39. The New York Steam Corporation is subject to the jurisdiction of the Commission. It has declared no dividends on its common stock since September 1, 1934, and in the current year it has paid preferred dividends for the first quarter only.

This stock was acquired without consideration or approval by the Commission. The Public Service Law does not require our approval, as pointed out in the opinion adopted by the Commission in Case No. 6128, September 9, 1930, Vol. X Public Service Commission Reports (1930) 445, 462, P.U.R. 1930E, 227.

If the company's proposal as it stood at the end of the year had been approved, debentures would have been substituted for stock in the Consolidated system finances, for it was proposed virtually to pay for the stocks of these two companies by the issuance of debentures. The Commission is opposed to the practice of substituting senior securities of a holding company for junior securities of an operating company. So far as the subway and the steam companies are concerned the Consolidated Edison Company is a holding company, but it is also an operating company. If the stocks of the subsidiaries do not pay dividends sufficient to meet the interest on the debentures, the Consolidated Edison Company as a company fur-

RE CONSOLIDATED EDISON CO. OF NEW YORK, INC.

nishing gas and electricity would be weakened. Further, the debenture holders have rights to enforce payment of interest far greater than any rights which the holders of the stocks of the subsidiaries possess.

There ought to be in every company and every system a substantial stock interest. No company should be capitalized wholly through the issuance of bonds and debentures. It is frequently stated that the amount of capital raised by bonds should not exceed 50 or 60 per cent of that raised by all of the securities outstanding. Naturally, this percentage must vary and depend upon conditions; but unless the common stockholders who control the board of directors and the general policy of the company have a substantial interest, the tendency is towards speculation and manipulation because of the small stake required to control a large and valuable property. The effect of issuing senior securities of a holding company to purchase junior securities of a subsidiary is virtually to increase the interest-bearing load of a system and reduce the common stock interest. We do not believe that this policy is sound finance or in the interest of the public or security holders generally.

It was quite common prior to 1930 for holding companies to purchase stocks at inflated prices and to issue bonds with foreclosure rights to raise funds to pay these excessive prices. This practice in some instances resulted in forcing holding companies into receiverships or a readjustment of their finances with losses to their stockholders. The Commission is opposed to such practices and does not believe that it is in the interest of the

public or of security holders generally.

When the company was advised of our attitude, it withdrew this feature of the proposal and asked for authority to issue debentures for funds to pay for extensions, additions, and betterments during the 3-year period from January 1, 1937, to December 31, 1939. Before proceeding to discuss this, the main feature of the proposal as it now stands, there are two items in the foregoing tabulation which may be disposed of.

[6] As to Item 2 above, the 6 per cent real estate second mortgages on the property at 552 and 556 East 178th street, New York city, were recently paid off and appear to be a proper item for refunding.

[7] In connection with the New Amsterdam Company bonds, it is understood that the city of New York acquired certain land formerly owned by the company and that the award of \$1,250,000 was deposited with the Central Hanover Bank and Trust Company, trustee, to satisfy the terms of the mortgage. Subsequently, the trustee released \$919,697.50 of the award upon delivery and cremation of \$778,000 face amount of such bonds, of which \$14,000 had been held as reacquired securities by the Consolidated company as of December 31, 1936, while the other \$764,000 were acquired during the 10-month period at a cost of \$905,697.50. It appears that the \$764,000 is a proper item for refunding.

Construction Expenditures and Retirements

[8-10] Data first submitted by the company showed an estimated total of \$44,969,000 construction expendi-

NEW YORK DEPARTMENT OF PUBLIC SERVICE

tures and \$19,433,000 retirements, leaving apparently a net addition to plant and property of \$25,536,000 for the two calendar years, 1937 and 1938. This, of course, includes both the actual expenditures to date (represented by the net increase in fixed capital, etc., of \$7,786,853.19 in the foregoing summary) and the estimates for the remainder of the 2-year period.

The company obviously considers the total net increase in plant and property accounts a proper basis for the issuance of debentures, which assumes that the value of a growing plant increases to the full extent of the increase in the plant accounts. This assumption is, of course, unwarranted; but even if true, it does not follow that a company should issue mortgage bonds, debentures, or even stock to the full extent of the plant increase. There are other important factors to be considered, even apart from changes in current and accrued assets and liabilities.

Inspection by our engineers indicates that the expenditures are reasonably necessary and proper, but it also appears that the company has retired or will retire considerable property during the 2-year period. Only a later detailed survey will show whether or not all necessary retirements have been listed. For the present, it may be assumed that the amount stated is correct. Accepting for the moment the company's figures at face value, it might appear that net capital additions would justify an increase in securities of \$25,536,000.

However, examination of the fig-

ures will not support this net amount. The so-called "net retirements" of the company are the estimated net charges to retirement reserve, not the fixed capital withdrawals themselves. During the first ten months of 1937, the "net retirement" charges set up on the basis used in the company's 2-year estimate were \$9,223,000. However, the total fixed capital withdrawals actually were \$12,081,000. The difference of \$2,858,000 represents the amount of correction apparent to date in the company's "net retirement" estimates. Assuming no further difference whatever in the remaining fourteen months between "net retirements" and fixed capital withdrawals, this \$2,858,000 should be deducted from the \$25,536,000 alleged net increase shown above, leaving only \$22,678,000 fixed capital increase in the entire two years.

Assuming no further adjustments, the above-mentioned \$22,678,000 net increase in fixed capital, plus \$773,000 decrease in long-term debt heretofore discussed, or a total of \$23,451,000, is the maximum (on the company's own theory) of new financing justified by the 2-year figures originally submitted.

In a supplemental petition, the company submitted construction and retirement estimates for 1939, stating that these were to be covered by the \$30,000,000 new financing, in addition to those for 1937 and 1938. Together with figures heretofore discussed, the 3-year estimate now stands as follows (including actual transactions for the year just ended):

RE CONSOLIDATED EDISON CO. OF NEW YORK, INC.

	Construction Expenditures	Retirements
Estimate for 1937 and 1938	\$44,969,000	\$19,433,000
Correction disclosed to October 31, 1937		2,858,000
Estimate for 1939 ..	22,183,000	7,640,000
	<u>\$67,152,000</u>	<u>\$29,931,000</u>

The net increase in plant accounts thus indicated (assuming no further divergence between plant withdrawals and the company's "net retirements") being \$37,221,000; to which may be added \$773,000 of debt paid off, giving an apparent margin of \$38,000,000 for financing on the company's doctrine.

Depreciation versus Retirements

[11-13] In deducting retirements from gross additions in the statements above submitted, the company obviously proceeds on the assumption that the funds made available from operating revenues for the purpose of financing replacements, betterments, etc., will be only sufficient to cover the retirement losses (book cost of property retired minus net salvage). If this method is followed, it will be necessary to finance new construction to the full extent of the net increase in plant, either by new security issues or by appropriation of surplus earnings.

However, this Commission has definitely rejected the retirement theory as a basis for protecting a company's assets. In a growing plant, when the actual cost of the operating property is increasing from any cause, the annual decline in value due to depreciation—that is, to obsolescence, inadequacy, deterioration, etc.—will as a general proposition exceed the annual retirements. Retirements in any year, in the case of a property such as the Con-

solidated Edison Company, are almost certain to be less in amount than annual depreciation.

It should be noted that the estimated "net retirements" during the three years in question (estimated at \$27,073,000, or about \$9,000,000 per year) amount to only about 1½ per cent per year of the book cost of the whole property.

The continuing property record study of Consolidated Edison property has not proceeded far enough to enable us to make a reliable estimate of annual depreciation; and we cannot at present go further than to venture the opinion that it is much more than \$9,000,000.

The proper method for determining the funds to be raised for new construction, additions, and betterments by the issuance of additional securities is to deduct from the total cost of such proposed expenditures the accruing depreciation (the decline in value of the existing property during the period due to all causes), plus any net salvage received, from plant retired. As the annual depreciation should be included in operating expenses and collected from consumers through the rates charged, it is available for some corporate purpose, together with net salvage, and the most natural and common use is the construction of additional facilities. It would be unnecessary and indeed improper to issue securities to provide funds for new construction when funds were available through the depreciation reserve. Indeed, under such circumstances, the Commission could not legally certify, as it is required to do in connection with any issuance of securities, that they are

NEW YORK DEPARTMENT OF PUBLIC SERVICE

"necessary" (§ 69, Public Service Law).

Thus, if routine credits to the depreciation reserve to the extent of \$15,000,000 (such amount including the charges to operating expenses to meet accruing depreciation and net salvage credits) were made in a given period and if the cost of the estimated gross additions were to be \$25,000,000 during the same period, the amount to be raised by the issuance of new securities would be \$10,000,000.

As the Commission has not in any proceeding determined the amount of annual depreciation for the Consolidated Edison system, we cannot at this time determine definitely the exact amount which should be deducted from the estimated cost of new construction of \$67,152,000 during the period from January 1, 1937, to December 31, 1939. From our general knowledge of the property and the amounts that have been fixed in other

cases, we are of the opinion that the company's estimate of \$37,221,000 as the amount which may be capitalized through the issuance of new securities is excessive.

[14] Through negotiations with financial houses, the company has arranged, subject to approval by this Commission, to issue \$30,000,000 in debentures to yield the company 99 $\frac{1}{4}$, the amount being allowed the underwriters not to exceed 2 points.

Considering all of the above factors and particularly present financial conditions and the terms under which the debentures are to be sold, the Commission approves the issuance of \$30,000,000 in debentures by the Consolidated Edison Company and provides that the funds thus obtained shall be used only for the purposes specified and that the expenditures shall be examined in detail in order to carry out the principles herein stated and to determine that each and every expenditure is for a proper capital purpose.

MINNESOTA RAILROAD AND WAREHOUSE COMMISSION

Lismore Coöperative Telephone Company v. Nobles Coöperative Electric (Project No. 66 of the Rural Electrification Administration)

[M-2369.]

Electricity, § 8 — Transmission lines — Inductive interference — Remedy.

1. The best method known to science to minimize or eliminate inductive
22 P.U.R.(N.S.)

LISMORE CO-OP. TELEPHONE CO. v. NOBLES CO-OP. ELECTRIC

interference originating from an electric transmission line which parallels the grounded circuit type of telephone line is to metallicize the telephone line for the full distance of the parallel and for a further distance of 500 feet beyond each end of said parallel, and to install a repeating coil properly protected and grounded at each end of the parallel and at any branches leaving said parallel, p. 251.

Electricity, § 8 — Inductive interference — Cost of elimination.

2. A cooperative electric organization building electric lines which would parallel grounded telephone lines of a company which had occupied the highways with such lines for many years was required to pay to the telephone company the reasonable value of the material necessary to metallize the telephone lines and eliminate inductive interference, and the telephone company was required to install such materials, p. 251.

[December 21, 1937.]

COMPLAINT by telephone company against an electric cooperative association engaged in constructing power lines to parallel grounded telephone lines; elimination of inductive interference ordered and costs apportioned.

By the COMMISSION: Pursuant to notice duly given, upon the filing of a verified complaint invoking the jurisdiction of the Commission by virtue of the provisions of Chap. 152 of the Laws of Minnesota for 1925, and the Rules and Regulations and Supplemental Amendments thereto adopted by the Railroad and Warehouse Commission, the above-entitled matter came on for hearing at Lismore, Minnesota, September 20, 1937, and pursuant to adjournment, further hearings were held at the office of the Commission at St. Paul, Minnesota, October 19 and 20, 1937. Cox, Weeks & Kuhlman of Minneapolis, Minnesota, by John A. Weeks, appeared for the complainant, and John A. Burns of St. Paul, Minnesota, appeared for the respondent and entered a special appearance objecting to the jurisdiction of this Commission over the subject matter herein involved, which objection has been overruled, and the Commission having heard the

evidence adduced and the arguments of counsel, and being fully advised in the premises, now makes the following findings and order:

Findings

1. The complainant, Lismore Coöperative Telephone Company, is a duly organized and existing coöperative corporation under the laws of the state of Minnesota, and as such operates a telephone exchange, rural telephone lines, and toll lines, with its principal place of business located at Lismore, Nobles county, Minnesota, and that complainant is engaged in rendering telephone service to the people of said community. The respondent, the Nobles Coöperative Electric is a duly organized and existing coöperative corporation under the laws of the state of Minnesota, organized for the purpose of distributing electricity in said community, and as such is being financed by the United States Rural Electrification Administration,

MINNESOTA RAILROAD AND WAREHOUSE COMMISSION

and is known as Project No. 66 of the United States Rural Electrification Administration.

2. Complainant operates, in connection with its exchange located within the village of Lismore, Nobles county, Minnesota, a number of rural telephone lines, radiating therefrom, and connected thereto, and has operated said exchange and telephone lines continuously for more than the past thirty years. That in particular, it owns and operates certain telephone lines, known as Lines 4, 5, 6, 440, and 441, which lines are located on the public highways in the townships of Wilmont and Leota, Nobles county, Minnesota, and that said telephone lines are what is known as grounded telephone circuits.

3. That in accordance with Chap. 152, Laws of 1925, and the Rules and Regulations of the Railroad and Warehouse Commission adopted pursuant thereto, published March 29, 1926, and supplementary amendments, complainant has duly requested respondent to take action to eliminate the inductive interference which will be caused by their paralleling power lines or to compensate complainant for the material required to metallicize their telephone lines within the parallel, all of which respondent has failed and refused to do.

4. Respondent is setting poles and has already set poles and is building and has built electric power lines in said townships aforementioned, which will parallel the particular telephone lines in Leota and Wilmont townships as hereinbefore mentioned on said highways and said power lines will carry a voltage of 7,200 to 12,400 volts.

5. A telephone circuit requires a complete path for the flow of a message current, which path may be two metallic wires, one for the flow of the current as it goes out and the other for the return of the message current, or the path may be made of a metallic wire for the current as it goes out, and the use of the earth for the other path for the returning current. The former is commonly referred to as a metallic or metallicized line, and the latter a grounded line. That all lines for the transmission or distribution of electrical energy, including respondent's regardless of the type of construction, will cause electric interference in grounded telephone circuits, that are within the electromagnetic field of such lines.

6. Complainant's telephone lines have been in operation and in use for many years, and are prior occupants of the highways, along which they were built prior to the construction of respondent's transmission lines, and said telephone lines have given the people in the community in which they operated economical and adequate telephone service. That complainant has ninety-two rural subscribers that are receiving telephone service along the telephone lines which will be detrimentally affected by the inductive interference, which will be caused by respondent's power line, as well as the general public, who may wish to communicate with said subscribers.

7. Complainant's telephone lines herein described, are to be paralleled by and within the electromagnetic field of respondent's power lines, being separated by only the width of the highway. That said power lines will cause inductive interference which

LISMORE CO-OP. TELEPHONE CO. v. NOBLES CO-OP. ELECTRIC

will render complainant's telephone lines useless and uncommercial, and deprive the telephone subscribers within the affected area of telephone service.

[1] 8. The best method known to science to minimize or eliminate such interference and render such lines serviceable is to metallicize the paralleled telephone lines for the fully distance of the parallel and for a further distance of 500 feet beyond each end of said parallel, and install a repeating coil properly protected and grounded at each end of said parallel, and at any branches leaving said parallel.

[2] 9. That 67.9 miles of complainant's lines will be affected by inductive interference, caused by respondent's power lines, and that it will be necessary to metallicize 40.6 miles of said line, in order to make the same serviceable and capable of rendering commercial telephone service, consisting of the following:

Line No. 4 is paralleled by respondent's line for a distance of 5 miles and a tributary parallel of 5.2 miles.

Line No. 5 has an actual parallel of 1.5 miles and no mileage tributary to the parallel.

Line No. 6 has a parallel of 1.5 miles actual parallel, and 2.2 tributary parallel.

Line No. 440 has a parallel of 5.9 miles and 7.5 miles of tributary parallel.

Line No. 441 has a parallel of 3.7 miles actual parallel and 8.1 miles of tributary parallel, making a total of 17.6 miles of actual parallel and 23

miles of tributary parallel, or a total of 40.6 miles.

The difference between the total miles affected and those requiring metallicizing, or 27.3 may be made free from inductive interference by the use of repeating coils.

10. The reasonable value of the glass insulators, oak brackets, wire and repeating coils, protectors, and coil housings, which material is necessary to metallicize complainant's telephone lines and eliminate the inductive interference which will be caused by respondent's power lines to said telephone lines is \$610.50. The cost of labor to install said materials will amount to approximately the same.

It is therefore *ordered*, that the Nobles Coöperative Electric, the respondent, pay to the Lismore Coöperative Telephone Company, the complainant, the reasonable value of the material necessary to metallicize complainant's telephone line and eliminate the inductive interference which will be caused to said lines by respondent's power line to wit the sum of \$610.50.

It is *further ordered*, that said payment be made by the Nobles Coöperative Electric before energizing their power lines involved herein.

It is *further ordered*, that the complainant shall install said materials necessary to metallicize said lines and eliminate the inductive interference which will be caused by respondent's power line at complainant's own expense.

NORTH CAROLINA UTILITIES COMMISSION

NORTH CAROLINA UTILITIES COMMISSION

North Carolina Merchants Association

v.

Duke Power Company

Rates, § 351 — Electric — Commercial lighting and residential consumers.

1. The residential customer is entitled to a lower electric rate than the commercial lighting customer, in view of the differences in conditions under which the two types of service are rendered and in the cost related thereto, such as maximum demand, diversity, and load factor, p. 253.

Discrimination, § 96 — Small and large users — Commercial electric service.

2. Commercial electric rate schedules providing a lower charge for succeeding blocks of energy than for the initial block were not found to discriminate in favor of large commercial consumers, p. 257.

(HANFT, Associate Commissioner, concurs in separate opinion.)

[November 15, 1937.]

COMPLAINT against alleged discrimination in electric rates for commercial lighting; dismissed.

The above entitled matter came on for hearing before the Commission on Thursday, April 30, 1936, at 10:30 o'clock A. M., upon a petition duly filed by the North Carolina Merchants Association, asking that the Duke Power Company be ordered to put into effect a commercial lighting rate not in excess of that charged to residential consumers and that said company be ordered to put into effect a commercial lighting rate schedule which does not discriminate in favor of a few large commercial consumers. The respondent filed answer praying that the petition be dismissed.

This case was heard by Stanley Winborne, Utilities Commissioner, F. L. Seely, Associate Commissioner, and Frank W. Hanft, Associate Commissioner.

The petitioners were represented by
22 P.U.R.(N.S.)

Attorney Herbert S. Falk, of Greensboro; the respondent was represented by W. S. O'B. Robinson, of Charlotte.

WINBORNE, Commissioner: The issues which the Commission finds are properly before the Commission, under the petition, the answer and the evidence introduced, are:

(1) Whether the commercial rate schedule of respondent is excessive and unlawfully discriminatory against merchants using electric current, in that it is considerably higher than the rate charged residential consumers using the same quantity of electricity, and

(2) Whether the rate schedule of respondent unlawfully discriminates between various classes of commercial users in that it gives a few large

NORTH CAROLINA MERCHANTS ASSO. v. DUKE POWER CO.

commercial consumers a rate for their electric service which is considerably lower than that given to the large body of commercial consumers.

There are in the pleadings and record many statements which deal with negotiations between the parties preliminary to the filing of the petition, with the corporate history, accounting practice, property appraisal, and income of respondent. However, the Commission finds that the only issues properly presented for determination are the two above noted.

The petition contains a schedule of rates for commercial electric lighting and residential electric service, the correctness of which is admitted in the answer. Following the filing of the answer and before hearing in this matter, respondent filed with the Commission and put into effect a new schedule of rates for residential electric service and commercial electric lighting service. Tables showing the rates in effect at the time of the filing of the petition and those subsequently put into effect are set out below:

Residential Electric Service—Rate (Effective before filing of petition.)

- 80 cents for the first 10 kw. hr. or less used per month.
- 6½ cents per kw. hr. for the next 20 kw. hr. used per month.
- 3 cents per kw. hr. for the next 100 kw. hr. used per month.
- 2½ cents per kw. hr. for all over 130 kw. hr. used per month.

Commercial Electric Lighting Service—Rate (Effective before filing of petition.)

- 80 cents for the first 10 kw. hr. or less used per month.
- 6½ cents per kw. hr. for the next 20 kw. hr. used per month.
- 5 cents per kw. hr. for the next 100 kw. hr. used per month.
- 4.9 cents per kw. hr. for the next 870 kw. hr. used per month.
- 1.9 cents per kw. hr. for all over 1,000 kw. hr. used per month.

Residential Electric Service—Rate

(New rate effective after March 1, 1936.)

- 80 cents for the first 10 kw. hr. or less used per month.
- 5 cents per kw. hr. for the next 20 kw. hr. used per month.
- 4 cents per kw. hr. for the next 20 kw. hr. used per month.
- 3 cents per kw. hr. for the next 50 kw. hr. used per month.
- 2½ cents per kw. hr. for all over 100 kw. hr. used per month.

Commercial Electric Light Service—Rate

(New rate effective after March 1, 1936.)

- 80 cents for the first 10 kw. hr. or less used per month.
- 5 cents per kw. hr. for the next 90 kw. hr. used per month.
- 4½ cents per kw. hr. for the next 300 kw. hr. used per month.
- 3½ cents per kw. hr. for the next 600 kw. hr. used per month.
- 2.8 cents per kw. hr. for the next 1,000 kw. hr. used per month.
- 1.9 cents per kw. hr. for all over 2,000 kw. hr. used per month.

Residential Electric Light Service—Rate

(Effective November 1, 1936.)

- 80 cents for first 10 kw. hr. or less used per month.
- 5 cents per kw. hr. for the next 20 kw. hr. used per month.
- 3½ cents per kw. hr. for the next 20 kw. hr. used per month.
- 2½ cents per kw. hr. for all over 50 kw. hr. used per month.

Schedule No. 1-C

Commercial Electric Lighting Service

(Effective on and after November 1, 1936.)

- 80 cents for the first 10 kw. hr. or less used per month.
- 4.5 cents per kw. hr. for the next 90 kw. hr. used per month.
- 4.0 cents per kw. hr. for the next 400 kw. hr. used per month.
- 3.0 cents per kw. hr. for the next 500 kw. hr. used per month.
- 2.5 cents per kw. hr. for the next 1,000 kw. hr. used per month.
- 1.9 cents per kw. hr. for the next 2,000 kw. hr. used per month.

[1] We proceed to the first issue, i. e., does the schedule of respondent unlawfully discriminate between the commercial electric lighting consumers and the domestic electric consumers? The schedules themselves show that the rates for commercial service

NORTH CAROLINA UTILITIES COMMISSION

are higher than the rates for residential lighting service. The evidence adduced by respondent in justification thereof was directed toward showing that the differentiation between the rates is based upon material differences in the conditions under which the two types of service are rendered and in the costs related thereto. The commercial lighting schedule is primarily not comparable with the residential schedule because the residential rate covers lighting, heating, cooking, refrigeration, and power, while the commercial schedule is largely for lighting alone, separate and lower rates being available for commercial power and heating service.

The maximum demands of a large percentage of commercial lighting consumers occur regularly at the same time of day. On the other hand, the individual maximum demands of the residential users occur at widely different times. This lower diversity between commercial loads results in a less effective use of the company's facilities than obtains with residential service and is reflected in a greater proportionate cost.

Neither the petitioner nor the respondent has furnished the Commission any data which show the actual cost differential between the two types of service, and the respondent's witness states that such a cost analysis would be of little value since it would be based, in part at least, upon assumption. From the evidence introduced, it is clear that it would be almost impossible to obtain an accurate analysis of such costs. Notwithstanding the absence of specific data as to costs, the evidence does clearly show that the cost to the respondent is great-

er in furnishing electricity to commercial lighting consumers than to residential electric consumers.

It must be kept in mind that the issue before us involves commercial *lighting only*, as compared with the residential service for all purposes. The commercial rates for refrigeration, heating, air conditioning, and motors of 2 horsepower or over, are not involved in this case; separate schedules are provided for these various classes of service at lower rates.

The residential user's consumption of electrical energy is more constant throughout the entire 24-hour period of the day now than ever before, and the number of kilowatt hours used in proportion to the kilowatt capacity connected is relatively much greater than the commercial user. Since the reduction in rates, which began in earnest in this state in August, 1932, the spread of the use of electricity by the residential consumer over the 24-hour period has been progressively increased. Formerly only a few residential customers used electricity for other than illuminating purposes, which use was confined to a few hours of the day. Now the use of refrigerators, water heaters, electric ranges, washing machines, radios, irons, et cetera, consume electricity in far greater amounts than heretofore and this consumption continues throughout the day into the night, long after the commercial customer has pulled his switch. It, therefore, appears obvious to this Commission that the residential customer is entitled to a lower rate than the commercial customer.

Basing its conclusions on the foregoing distinction between the nature and cost of furnishing the two types

NORTH CAROLINA MERCHANTS ASSO. v. DUKE POWER CO.

of service, the Commission finds that the schedule now in effect does not unlawfully discriminate against commercial lighting consumers. A similar question has been presented to other state regulatory bodies and they have reached decisions substantially in accordance with that here made. *Re Rochester Gas & E. Corp.* (N. Y.) P.U.R.1931D, 31; *Re Middleton Municipal Water & Light Dept.* (Wis.) P.U.R.1933C, 201; *Re Hartford Utility Dept.* (Wis. 1932) P.U.R. 1933C, 498; *Hartford v. Hartford Electric Light Co.* (Conn. 1935) 9 P.U.R.(N.S.) 228; *Twenty-five Customers v. Brooklyn Edison Co.* (N. Y. 1937) 18 P.U.R.(N.S.) 241.

The Wisconsin Commission, which has been one of the most active Commissions in the nation, in the revision of utility rates, in 1932 in its order in the case, *Re Hartford Utility Dept.* *supra*, P.U.R.1933C, at p. 502, in justifying its conclusion that commercial rates should be higher than residential rates, said:

"The question has been raised by customers and officials as to why there should be a differential between the size of blocks, or rate per kilowatt hour for service supplied residential customers, and service supplied commercial customers. The reason for such differentials is the peculiar characteristics of the various classes of users; such as better load factor, operation at off-peak periods, etc.

"It has been found that on the average a commercial customer has a poorer load factor than the average residential customer. That is, the number of kilowatt hours used in proportion to the kilowatt capacity connected is relatively small. Again, the

commercial customer, in addition to being a short-hour user, with a relatively large connected load, ordinarily makes his demand upon the system of the utility simultaneous with the maximum demand upon the plant and thus necessitates the holding in readiness of the full generating capacity which the installation in question would require. In brief, the average commercial customer is a short-hour user of a relatively large load which comes on the peak for which generating capacity must be provided.

"The utility, obliged to maintain a considerable plant in order to supply service to a group of customers during a few hours only, is supplying expensive service, because the fixed charges covering the whole year form a large part of the cost of service. When the bulk of the utility's business is nonpeak to the extent of making use of investment during the periods which otherwise would be lightly loaded, the customer should not be charged with all of the demand costs comprising the on-peak demand only, but should be given the full benefit of the economies resulting from the fact that he uses considerable energy at a time which is off-peak."

The same Commission in 1933, in the case of *Re Middleton Municipal Water & Light Dept.* *supra*, refused to approve rates submitted to it by the utility applying alike to residential and commercial customers, and ordered a reduction in the residential and rural rates but not the commercial rates. In said opinion the Commission states (P.U.R.1933C, at p. 207): "This procedure is based on long-recognized differences in load characteristics of the different classes

NORTH CAROLINA UTILITIES COMMISSION

of customers, and to ignore this factor would tend to lead to rate discriminations."

The Tennessee Valley Authority, in fixing its rate schedule, makes a greater percentage difference between the rates charged commercial customers and residential customers than exist between the same two classes of service in the rates of the Duke Power Company; the commercial rate being much higher.

Since the first draft of this order, there has appeared an article in the September 16th issue of the *Public Utilities Fortnightly*, page 338, by Richard J. Beamish, member of the Pennsylvania Public Utility Commission, in which is discussed the recent investigation of electric rates by his Commission and the "temporary rates" which the Commission "has moved to apply" to the Edison Light & Power Company and other electric companies in his state. The schedules of domestic and commercial rates are set forth in said article in detail and show that for domestic service the charge per kilowatt hour for all in excess of 200 kilowatt hours per month is not reached in the commercial schedule until over 2,000 kilowatt hours per month have been consumed. The two schedules are the same only for the first 30 kilowatt hours per month, after which the residential rate drops below the commercial.

We have examined numerous decisions, both by Commissions and the courts, and find that, almost invariably, higher commercial than residential rates have been prescribed and approved.

In some few instances throughout

the country the commercial and residential rates are the same, but in most cases where this is true we find that it is in a city or town which is served by natural gas and where the gas rates are so low that it is used for cooking, water heating, and refrigeration and the residential customer is practically no more than a lighting customer and there are not the characteristic differences between the commercial lighting customer and the residential lighting customer as exist in North Carolina.

Mr. C. L. Fishburn, Jr., the expert witness for the petitioner, who is on the engineering staff of the South Carolina Public Service Commission, although contending that in his opinion there was no element of cost in supplying a commercial customer which would justify an increased rate over that charged a residential customer, admitted that in South Carolina the same difference exists between the commercial and residential rates of the Duke Power Company as in North Carolina, and that there was less difference between the commercial and residential rates charged by the Duke Power Company and approved by the South Carolina Commission, than in any other electric utility operating within said state.

Even if the cost of serving a commercial customer was no greater than that of serving a residential customer, and this Commission is definitely of the opinion that the cost is greater, the results which have been obtained by repeated reductions in rates for the last four years have fully justified the lower rates given the residential customer. Prior to the rate reduction effective December 1, 1932, the Duke Power Company had the same sched-

NORTH CAROLINA MERCHANTS ASSO. v. DUKE POWER CO.

ule of rates for residential as for commercial use with a low cooking rate. At that time the rates were high, too high to permit the free use of electricity, either by commercial or residential customers. In opposing rate reductions, the utilities contended that the revenue was insufficient to permit reductions. The solution of the trouble, both from the utilities and the public standpoint, in the opinion of this Commission, was to increase the volume of sale, and that in order to increase the volume of sale, the cost of electricity must be so reduced that the public could use it freely. After repeated conferences, the utilities agreed to try out the theory of the Commission and reductions were made. The results were so gratifying that further reductions were made in large and larger amounts from year to year as the consumption increased. At the beginning greater reductions were made to residential customers than to commercial customers, and this was done for two reasons, *first*, because it was believed then, as now, that it cost more to serve the commercial customer; and, *second*, because it believed there was a greater possibility of increasing the volume of sales to residential than to commercial customers.

The substantial increase in the consumption of electricity by residential customers since December 1, 1932, has progressively stimulated the use of electricity and made other reductions possible.

Furthermore, it should be remembered that the lower residential rates have benefited the greater number of people and have made it possible for those already having electricity in

their homes to take fuller advantage of the benefits derived from its use and have also carried the service to thousands of homes, especially in rural sections, where electricity was hitherto not available.

[2] The second issue involves an alleged discrimination between various classes of commercial users. The rate tables heretofore set out show that under the rates in effect at the time the petition was filed, the lowest rate, until 1,000 kilowatt hours have been consumed, is 4.9 cents per kilowatt hour and that the rate following consumption of 1,000 kilowatt hours is 1.9 cents per kilowatt hour, or a drop of 3 cents per kilowatt hour between the two blocks of consumption. The table further shows that under the schedule which was made effective March 1, 1936, subsequent to the filing of the petition, but prior to this hearing, the difference in the rate between commercial consumers using less than 1,000 kilowatt hours and those using more than that amount has been materially lessened.

The evidence establishes and the Commission recognizes that it is customary to charge a lower rate for succeeding blocks of energy than for the initial block. There is insufficient evidence in the record to show that the rate to commercial consumers using more than 1,000 kilowatt hours under the schedule presently effective is unreasonable or constitutes an unjust discrimination against the other commercial consumers. The rates effective on March 1, 1936, and November 1, 1936, have made the spread between the rate for various blocks of electricity to commercial consumers more gradual and thus a large part of

NORTH CAROLINA UTILITIES COMMISSION

petitioner's alleged cause of complaint has been eliminated. We, therefore, find that allegations in the petition with respect to the unlawful and unfair discrimination have not been sustained by competent proof.

It should be noted as a matter of record but not as determinative of the issue involved herein, that on November 1, 1936, after the hearing in this case, new lower rates were put into effect for both residential and commercial consumers and that these rates make the reduction to commercial consumers in the various consumption blocks still more gradual and decrease the divergence between the commercial lighting and residential service schedules below that existing under the schedules which were effective when the hearing herein began.

It having been unanimously agreed in the first conference on this case that the commercial rates could not be legally reduced, as prayed for by the petitioner, and the Commission being of the opinion that further rate reductions could be procured by agreement, deferred the issuing of the order. Rate reductions were procured in November, 1936, both in the residential and commercial rates, the greater reductions being in commercial rates. The Commission continued in the belief that still more reductions could be procured by agreement in the fall of 1937; and reductions could have been justified had not there been an increase in operating cost and at the same time a decided diminution in income for the last quarter of 1937.

Wherefore it is *ordered*, that the petition be and the same is hereby dismissed.

HANFT, Associate Commissioner, concurring: I concur. At the time the petition herein was filed it was hoped by the petitioners that the alleged discrimination between commercial and residential rates would be removed by lowering the commercial rates. Of course, such a result would not necessarily follow from a mere showing of discrimination; the discrimination could also be removed by raising the residential rates. Naturally this latter result was not sought by petitioners, but rather a lowering of their own rates. Without the compulsion of an adverse order by the Commission in this case both the commercial and residential rates have been materially reduced since the filing of this petition.

Both objectives of petitioners having been accomplished, there appears to be no occasion for any further action by the Commission. There is no grievance to be remedied unless the bare fact of a difference between commercial rates and residential rates constitutes a grievance. Obviously such a difference is justified. Commissioner Winborne in his opinion has already pointed out that the user of electricity for commercial lighting has an unfavorable load factor. That is, his use of current is small in comparison to his capacity. That this poor load factor justifies a higher rate can be demonstrated by the following illustration, over simplified in order to make plain the principle: An electric company has only one customer, and that customer runs a motor by electricity ten hours a day. A second electric company has also only one customer, who has a motor ten times as big

NORTH CAROLINA MERCHANTS ASSO. v. DUKE POWER CO.

which he runs by electricity only one hour a day. The two electric companies obviously sell exactly the same amount of current. Equally obviously the second company would have to maintain a plant ten times as powerful in order to sell exactly the same amount of current as the first plant. The rates of the second plant must therefore be higher than those of the first, and the second customer must pay more than the first. Since the commercial customers have a relatively large demand for a relatively small

time each day they must expect to pay more for their current. Add the fact that this demand comes at the time of the company's peak load and it becomes plain that a higher charge to commercial customers is not discriminatory. Discrimination arises when differences in treatment are not founded on differences in circumstances.

SEELY, Associate Commissioner: I fully concur in the opinion of Commissioner Winborne in the foregoing order.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re The Plainfield Water Company

[Securities Certificate No. 5.]

[Application Docket No. 35401.]

The Plainfield Water Company

v.

The Bangor Water Company

[Complaint Docket No. 11355.]

Re The Bangor Water Company

[Application Docket No. 35314.]

Franchises, § 3 — Necessity — Effect of statute requiring service in township — Source of water supply.

1. A water company chartered to furnish service in a borough but having

PENNSYLVANIA PUBLIC UTILITY COMMISSION

a source of water supply in an adjoining township was held to have right-fully supplied water in the township (except for a defect in the right of the company because of its failure to obtain a certificate of public convenience), in view of a statutory provision that a water company failing to serve in a township from which it obtains its water supply should forfeit its right to water, particularly where service had been rendered at a time when a company chartered to furnish service in the township was not operating in the part of the township affected and for a long time had made no objection, p. 261.

Monopoly and competition, § 34 — Certificate grant to operating company — Objection by chartered company.

2. A water utility company which for a long time has furnished service to consumers in a township where another company has charter rights should be permitted to perfect its rights by receiving a certificate of convenience and necessity when its application for a certificate is accompanied by petitions from over 80 per cent of the consumers taking service, p. 262.

Discrimination, § 20 — Service in exchange for right of way.

3. Furnishing water service in exchange for right of way, not permitting a determination of whether the charge for service is in accordance with the tariff rates and resulting in possible undue discrimination, is improper and does not have the Commission's approval, p. 263.

Monopoly and competition, § 48 — Failure of present utility to serve — Proper remedy.

4. A water utility company should not be permitted to extend service to a prospective customer in a borough where another company is operating and is obligated to furnish an adequate supply of service; if the latter company refuses to furnish such service, the proper remedy lies through the filing of a complaint to that effect with the Commission, p. 263.

[January 24, 1938.]

APPPLICATIONS by water utilities for operating rights and for authority to issue securities; order in accordance with opinion.

By the COMMISSION: The Plainfield Water Company, hereafter referred to as Plainfield Company, is successor to two corporations formed in 1910 and 1913 with charter rights to serve water in Washington and Plainfield townships, Northampton county. The actual purpose of their formation, as distinguished from the charter purpose, however, was to serve water to the village of Pompeii, now known as West Bangor, which lies partly in each township, and up to the present time no effort was made

by Plainfield Company or its predecessors to extend service to those portions of the townships outside the village, except for one line out from the village for about three-fourths of a mile.

The Bangor Water Company, hereafter referred to as Bangor Company, was formed in 1884 with charter rights to serve water to the borough of Bangor, Northampton county, and these rights have been exercised since shortly after the company's formation. The borough of Bangor

RE THE PLAINFIELD WATER CO.

and Washington township have a boundary line in common, and thus the chartered territories of Bangor Company and Plainfield Company adjoin. It is this fact which gives rise to the dispute involved in these cases.

In 1919, a silk mill, lying just outside the limits of Bangor borough in Washington township, extended a pipe line to the borough boundary and began to take service from Bangor Company. Subsequently, in 1924, several persons residing in Washington township beyond the silk mill entered an arrangement whereby they advanced funds for pipe, and Bangor Company installed it from the silk mill line to their premises and furnished water service to them. This line is now known as the Flicksville extension.

A second pipe-line extension in Washington township, by Bangor Company from another point on the borough of Bangor boundary, was made in 1929 at the request of certain residents. Bangor Company has since furnished water service to consumers on this extension, now known as the Upper Market street line.

Both of these extensions into Washington township are at considerable distances from the village of West Bangor and from the lines of Plainfield Company. The cost of an extension of the latter's plant solely for the purpose of serving the Flicksville and Upper Market street consumers would have been prohibitive. No objection was raised by Plainfield Company when Bangor Company made these extensions. However, it should be noted that the extensions were made and service was furnished

without the Bangor Company first having secured a certificate of public convenience from the Public Service Commission of the commonwealth of Pennsylvania, as was then required by The Public Service Company Law.

[1] Plainfield Company has evolved a plan for enlarging its plant, and in connection therewith it demands that Bangor Company surrender to it the territory in Washington township which the latter is now serving. Plainfield Company alleges that the Flicksville and Upper Market street lines are encroachments upon its territory, and that Bangor Company is without lawful authority to continue such service. Bangor Company, in answer, points to the circumstances existing at the time the extensions were made, and relies particularly upon the fact that since 1901 one of its sources of water supply has been Muffley Springs in Washington township. As to this fact, § 1 of the Act of 1907, P. L. 278, provides as follows:

"From and after the passage of this act, any water company obtaining its water supply, or any part thereof, from a source lying within the corporate limits of any municipality, city, borough, or township, in this commonwealth, shall furnish such municipality and the inhabitants thereof with water, or otherwise forfeit its rights to a sufficient quantity of water, from such source, as will supply the needs of such municipality, city, borough, or township, and the inhabitants thereof."

It therefore appears that, had Bangor Company refused to furnish water to the Flicksville and Upper Market street consumers when re-

PENNSYLVANIA PUBLIC UTILITY COMMISSION

quested to do so by them, it would have risked the forfeiting its rights to a portion of all of its supply of water from the source in this township. Plainfield Company alleges that this argument is a mere subterfuge. The provisions of this act are clear, however, and in view of the fact that Muffley Springs was a source of supply for Bangor Company as early as 1901, nine years before the first of Plainfield Company's predecessors was formed, the Commission cannot agree with the allegation. Because of this provision of law, the circumstances existing at the time the extensions were made, and the absence of objection from Plainfield either at that time or in the long period since then, we are led inevitably to the conclusion that Bangor Company is serving water rightfully on the Flicksville and Upper Market street lines, subject to the defect arising from failure to obtain a certificate of public convenience approving the exercise of these rights.

[2] In view of this situation, Bangor Company has filed with us an application (Application Docket No. 35314) for a certificate of public convenience authorizing it to serve the Flicksville line, which application is accompanied by petitions from residents along that line, to the company, for water service. These residents constitute over 80 per cent of the consumers taking service from the Flicksville extension. The position of the Commission upon this matter is that since Bangor Company served water to these consumers when they first requested it, and has now received petitions from owners of the majority of the lots of land abutting on the line, thereby evidencing that the serv-

ice rendered is for the convenience of them (who, of course, are the general public in that territory), and since it is otherwise serving rightfully under the Act of 1907, we will permit the company to perfect its right by granting the certificate.

For some reason, apparently an oversight, a similar application covering the Upper Market street line has not been filed with us. Until that is done, and unless the Commission acts favorably upon such application, the right of Bangor Company to serve that line will remain defective.

The conclusion reached by us, that Bangor Company is rightfully furnishing water on the two lines in question (except as to the imperfection just noted), makes the dismissal of Plainfield Company's complaint (Complaint Docket No. 11355) against such furnishing of water a necessary corollary.

So likewise must we reject the securities certificate filed by Plainfield Company, inasmuch as the bonds therein proposed for issuance could not be supported unless the issuer had available to it the revenues from the two lines in Washington township now owned by Bangor Company. There is shown below a condensed perspective earning statement of Plainfield Company for twelve months, based upon Schedule B-1 of its securities certificate and its Exhibit No. 1 offered at the hearing of February 16, 1937:

Operating revenues	\$9,207
Operating expenses	3,657
Operating income	\$5,550
Interest at 5% on \$50,000 of bonds ...	2,500
Net income	\$3,050

RE THE PLAINFIELD WATER CO.

From the same Exhibit No. 1, it is found that of the \$9,207 of revenues reflected in the above statement, \$3,777 represents anticipated revenues from the Flicksville and Upper Market street lines. Consequently, since this source of funds will not be available to the company, it would be unable to meet interest on the proposed bond issue.

The fourth proceeding before us is an application of Plainfield Company for permission to enter into an agreement with the Bangor Recreational Association. The latter is an unincorporated organization apparently created for the purpose of building a swimming pool within the borough of Bangor with funds obtained from local and Federal authorities and by popular subscription. The gist of the proposed agreement is that the association would provide the facilities from the pool to the proposed facilities of Plainfield Company which would furnish water for the pool in exchange for right of way for its proposed facilities.

This proposal could be accomplished only if Plainfield's lines were extended as proposed in its building program, for at the present time its lines are not adjacent to the point of intersection of the borough line and the contemplated swimming pool supply pipe. Since that program cannot be accomplished unless Plainfield Company takes away Bangor Company's Flicksville and Upper Market street lines, and this we have refused to permit, the agreement between Plainfield and the association is impossible of accomplishment.

[3, 4] A second point in this matter is the question of whether or not

it is sound policy for Plainfield Company to furnish water in exchange for right of way. Such consideration is indefinite. It does not permit a determination of whether the charge for service is in accordance with the tariff rates and the result might be undue discrimination against other consumers. Such an exchange is therefore improper and does not have our approval.

In this petition, Plainfield Company alleges that the association first requested the Bangor Company to furnish water to it, and that Bangor Company would not and could not do so because it lacks an adequate supply. Bangor Company denies the allegation. Our position is that under existing law, it is the duty of Bangor Company, and Bangor Company only, to serve water in the borough of Bangor, and if it refuses to do so, or renders an inadequate service, the proper remedy lies through the filing of a complaint to that effect with the Commission.

All of these proceedings were consolidated for the purpose of hearing and subsequent consideration. Hearings were held on February 16, May 13, and July 8, 1937. At the last hearing, representatives of Washington township school district appeared and emphasized the necessity for an early determination of the question of what public utility could rightfully serve water to the new Washington township consolidated school building, which was then nearing completion and was scheduled to be available for school use in September, 1937. Involved also in this matter was the question of which company should serve the villages of Meyers Crossing and Ackermanville, which lie along the same

PENNSYLVANIA PUBLIC UTILITY COMMISSION

route, for service to the school would not be profitable to either company unless it could also serve these two communities. Thereupon, the Plainfield Company and the Bangor Company each stipulated its willingness to provide this service and further stipulated that the Commission, without prejudice to either party upon final adjudication, might authorize either of them to so extend facilities and furnish service, subject to the condition that such of said facilities as the Commission, in its final order, shall find to be in the other's territory and used and useful to it in the rendition of public service, shall be sold to such other company at cost, which cost shall be subject to the scrutiny of the Commission.

On July 19, 1937, the Commission, in an interlocutory order, authorized the Bangor Water Company to proceed immediately with the construction of facilities and the furnishing of service to the school and the villages of Ackermanville and Meyers Crossing in accordance with the stipulation with respect thereto of record in these proceedings.

The Bangor Company completed the construction of the necessary facilities and is now furnishing water service as ordered.

From the conclusions reached by the Commission in the four proceedings heretofore discussed, it also follows that the Bangor Company should be continued in its right to serve the school property and the villages of Ackermanville and Meyers Crossing. It is therefore suggested that the Bangor Company ask for permanent rights to furnish this service.

Upon consideration of these proceedings, and of the various matters and things involved therein, the Commission finds and determines that approval of Bangor Company's Application Docket No. 35314 is necessary or proper for the service, accommodation, or convenience of the public; that approval of Plainfield Company's Application Docket No. 35401 is not necessary or proper for such purpose; that the evidence does not sustain Plainfield Company's Complaint Docket No. 11355; and that Plainfield Company is financially unable to support the bond issue proposed for issuance at Securities Certificate No. 5; therefore,

Now, to wit, January 24, 1938, it is ordered: That the extension of franchise territory by The Bangor Water Company into a tract of land described in Application Docket No. 35314 be and is hereby approved, and that a certificate of public convenience issue in evidence thereof.

It is further ordered: That the entering of an agreement by The Plainfield Water Company with Bangor Recreational Association, as described in Application Docket No. 35401, be and is hereby disapproved.

It is further ordered: That the complaint of The Plainfield Water Company against The Bangor Water Company at Complaint Docket No. 11355, be and is hereby dismissed.

It is further ordered: That the securities certificate with respect to the issuance by The Plainfield Water Company of its refunding and improvement 5 per cent bonds, due January 2, 1967, be and is hereby rejected.

Public Utility Commission

v.

T. W. Phillips Gas & Oil Company

[Complaint Docket No. 11323.]

Commissions, § 11 — Jurisdiction and powers — Proceeding started before predecessor Commission.

1. The Public Utility Commission is empowered by Art. XIV, §§ 1404, 1405, of the Public Utility Law to complete a proceeding started before the Public Service Commission and to penalize any action of a respondent which the record shows was in violation of the repealed Public Service Company Law, p. 266.

Discrimination, § 14 — Free service — Compensation other than money.

2. Free service or service for compensation or consideration other than money rendered by a public utility to some of its consumers is discriminatory against its other consumers and therefore unlawful, p. 267.

Public utilities, § 79 — What constitutes public utility service — Furnishing natural gas under lease provisions.

3. Furnishing natural gas by a gas and oil company to the lessor of a tract of land is public utility service rather than management of the gas as agent for the lessor on the theory that the landlord has title to the gas, where such gas is furnished under a lease provision that while gas is being sold off the premises the lessor may have free gas for domestic purposes and the gas and oil company shall not be liable for any shortage or failure in supply of gas caused by pumping gas from the premises or otherwise, and that the company shall have the right to all gas free of cost that can be saved from producing oil wells, p. 267.

Service, § 215 — Discontinuance — Authorization — Illegal service.

4. The action of a gas and oil company in removing a high-pressure line without Commission approval is not unlawful if the company is furnishing service to a lessor of gas lands in violation of the Public Service Company Law, since the company is under no obligation to continue to furnish service pursuant to its lease and in violation of the law, p. 267.

Fines and penalties, § 8 — Excuses — Mitigating circumstances.

5. Imposition of monetary penalties upon a gas and oil company was held to be improper although the company had rendered itself liable to penalties by furnishing free gas to a lessor under a gas lease in violation of law, where the company's violation was of a type not uncommon in the field of natural gas, which type of violation had gone substantially unchallenged by the predecessor Commission, p. 268.

[January 24, 1938.]

PENNSYLVANIA PUBLIC UTILITY COMMISSION

INVESTIGATION of furnishing of natural gas service in violation of law and discontinuance of such service to certain customers; company ordered to cease and desist from rendering gas service in violation of law.

By the COMMISSION: Following the informal complaint that T. W. Phillips Gas and Oil Company had rendered natural gas service to the public within Pennsylvania in violation of Art. III, §§ 7 and 8, of the Public Service Company Law, now repealed, and that it had discontinued service to certain of its consumers, among them C. F. Smith and O. C. Smith in North Mahoning township, Indiana county (hereinafter referred to as informal complainants) without first obtaining the approval of the predecessor Public Service Commission, that Commission on December 22, 1936, entered a rule against respondent to show cause why service should not be restored and further why penalties should not be imposed for violation of the Public Service Company Law.

A hearing on the said rule was held January 29, 1937, and the following facts are found by the Commission:

Informal complainants' predecessor in title, H. A. Smith, was, in 1909, the owner of a tract of land situate in North Mahoning township, Indiana county, and on May 20th of that year he executed a lease on his land to respondent for the purpose of developing it for gas and oil for fifteen years, or as long thereafter as oil and gas were produced in paying quantities, or operations were conducted on the premises. The lease contained, inter alia, the following clause:

"While gas is being sold off these

premises, said first party (lessor) may have gas free of cost for domestic purposes on said premises to the extent of 200,000 cubic feet per year, said first party to make the necessary connections and assume all risk in using said gas. The said second party shall not be liable for any shortage or failure in supply of gas for said domestic purposes caused by pumped gas from said premises or otherwise, and said second party shall have the right to all gas free of cost that can be saved from producing oil wells."

In 1921 informal complainants succeeded H. A. Smith in ownership of the land subject to the said lease. Subsequently, when respondent drilled a producing gas well in 1924, informal complainants took advantage of the free gas provision of the lease by connecting with a high pressure line owned by respondent and placed parallel with the west boundary of their land.

In 1936 respondent proposed to lift the line to which informal complainants had connected, which change would necessitate a connection by the latter at a distance of 967 feet from the original line. The said line was subsequently lifted, and after protest informal complainants made a new connection with respondent's relocated high pressure line at a cost of approximately \$73 to themselves, and again received gas under the above-quoted provision of the lease.

[1] By Art. XIV, § 1404, of the

PUBLIC UTILITY COMMISSION v. PHILLIPS GAS & OIL CO.

Public Utility Law (66 PS § 1534) it is provided, inter alia, that:

"All litigation, hearings, investigations, and other proceedings whatsoever, pending under any act repealed by this act, shall continue and remain in full force and effect, and may be continued and completed under the provisions of this act."

By Art. XIV, § 1405, of the Public Utility Law (66 PS § 1535) it is provided, as follows:

"Repealed Laws Not Revived, etc. —The repeal by this act of any other act shall not revive any law heretofore repealed or superseded, and shall not impair or affect any act done, offense committed, or liability, penalty, judgment, or punishment incurred, prior to the time this act takes effect, but the same may be enforced, prosecuted, or inflicted as fully and to the same extent as if this act had not been passed. The provisions of this act, as far as they are the same as those of existing laws, shall be construed as a continuation of such laws and not as new enactments."

From the above-quoted provisions of the Public Utility Law, it is apparent that this Commission is empowered to complete this present proceeding and to penalize any action of respondent which the record shows was in violation of the repealed Public Service Company Law.

[2-4] The repealed Public Service Company Law provided by Art. III, § 7, thereof, that it was unlawful for any public utility to render any type of service until tariffs were duly filed and posted, and also provided by Art. III, § 8, thereof, that it was unlawful for any public utility to make

any unjust discrimination in rates between members or classes of the public. Before the passage of the Public Utility Law it was well established that free service, or service for compensation or consideration other than money, rendered by a public utility to some of its consumers was discriminatory against its other consumers, and, therefore, unlawful as a violation of Art. III, §§ 7 and 8 of the Public Service Company Law. See *Vernon Township v. Public Service Commission* (1920) 75 Pa. Super. Ct. 54; *Wayne Sewerage Co. v. Fronefield* (1921) 76 Pa. Super. Ct. 491; *Dickson v. Drexel* (1926) 285 Pa. 419, 132 Atl. 284; *Henshaw v. Fayette County Gas Co.* (1932) 105 Pa. Super. Ct. 564, P.U.R.1933B, 141, 161 Atl. 896.

Respondent takes the position that the provisions of the Public Service Company Law do not apply to the transaction between it and informal complainants, because respondent has not rendered utility service to informal complainants. In support of its position respondent contends that title to 200,000 cubic feet of gas per year is vested by the lease in informal complainants and respondent merely manages this gas as agent, not as owner. It is further contended that in using said gas for domestic purposes informal complainants are using purely their own property, which property respondent has no right to devote to a public use, and that informal complainants are, therefore, not consumers of respondent. Consequently, respondent concludes that no matter of its rates and service is herein involved.

With this position the Commission cannot agree. The provision in the lease that—"The second party (re-

PENNSYLVANIA PUBLIC UTILITY COMMISSION

spondent) shall not be liable for any shortage or failure in the supply of gas for said domestic purposes caused by pumped gas from said premises or otherwise, . . . " seems clearly incompatible with respondent's contention that it does not own the entire supply of gas produced in informal complainants' premises. This clause in the lease in the instant case bears marked resemblance to a clause in the lease in the case of *Fanker v. Anderson* (1896) 173 Pa. 86, 87, 34 Atl. 434, which provided as follows:

"It is further agreed that if gas is obtained in sufficient quantities and utilized off these premises, the consideration in full to the party of the first part shall be the free use thereof for domestic purposes, and one-eighth of gas sold for each and every gas well drilled on the premises herein described and piped off the same, payable in thirty days after the pipe line is laid."

The construction of this provision by the lower court, and affirmed in a per curiam decision, was:

"(The lease only gives to the plaintiff (lessor) here the right to the gas if it is obtained in sufficient quantities, after the defendants have used the gas for the purpose of operating their lease in a reasonable and proper manner. If there is a sufficient quantity left after its use in a reasonable manner by the defendants, and to supply the plaintiff for domestic purposes, then he is entitled to receive it, and only then. If it is utilized off the premises by pipes, and marketed away from the premises, he is entitled to a one-eighth of the gas sold and utilized off the premises)."

We are of opinion that the above-

quoted language applies equally in the instant case and that the furnishing of gas by respondents to informal complainants under the terms of the lease was the furnishing of gas belonging to the respondent. It follows from what has already been said that such action constituted the rendering of public utility service in violation of Art. III, §§ 7 and 8 of the Public Service Company Law, for which penalties may be imposed. The action of respondent in removing its high pressure line without Commission approval was not unlawful, since respondent was under no obligation to continue to furnish informal complainants with gas for domestic purposes pursuant to the lease and in violation of the Public Service Company Law.

[5] As was above said, the action of respondent in furnishing free gas service renders it liable to penalties. However, due to the fact that respondent's violation is of a type not uncommon in the field of natural gas service, which type of violation has gone substantially unchallenged by the predecessor Public Service Commission, this Commission is of the opinion that the imposition of monetary penalties would be improper in this case.

That the Commission has refrained from here imposing monetary penalties shall not, in any manner, be construed as an indication that the Commission does not take the same uncompromising attitude as the courts have taken in the above-cited cases on the question of free service. On the contrary, since the provisions of Art. III, §§ 302, 303, and 304 of the Public Utility Law are substantially a re-enactment of Art. III, §§ 7 and 8 of

PUBLIC UTILITY COMMISSION v. PHILLIPS GAS & OIL CO.

the Public Service Company Law, these decisions are absolutely binding under the Public Utility Law, and the Commission will accordingly follow the principles therein established.

Upon full and careful consideration of the record, we find that respondent's rendering of service under the terms of the lease of May 20, 1909, between respondent and H. A. Smith was in violation of Art. III,

§§ 7 and 8 of the Public Service Company Law and would be in violation of Art. III, §§ 302, 303, and 304 of the Public Utility Law. Therefore, the rule to show cause in this case will be made absolute and respondent will be ordered to cease and desist from rendering natural gas service in violation of Art. III, §§ 302, 303, and 304 of the Public Utility Law.

WISCONSIN SUPREME COURT

State ex rel. Wisconsin Development Authority et al.

v.

Theodore Dammann, Secretary of State

(— Wis. —, 277 N. W. 278.)

Legislature — Quorum — Action on appropriation bill.

1. Members of the senate present, constituting less than a quorum under § 8, Art. VIII, Wisconsin Statutes, are wholly without power to take legislative action in relation to the passage of an appropriation bill, since there is not in attendance a legislative body capable under the Constitution of transacting such legislative business, p. 271.

Statutes, § 3 — Invalidity — Passage without quorum.

2. The attempted passage of an appropriation bill by members of the senate when less than a quorum are present is a nullity, and the status of the bill in the senate continues as it was before the votes were taken until that house subsequently acts effectively by voting the passage of the bill with the required quorum in attendance, p. 271.

Statutes, § 3 — Validity of enactment — Prior invalid attempt to enact.

3. An appropriation bill, the attempted passage of which by the senate is a nullity because of the lack of a quorum, is duly enacted when subsequently the senate votes the passage of the bill with the required quorum in attendance and thereafter the bill is validly acted upon by the assembly and the governor, p. 271.

Constitutional law, § 8.2 — Departments of government — Execution of laws.

4. The governmental power to execute the laws is vested in the executive department of the state and can be exercised only by duly constituted officers thereof, p. 272.

WISCONSIN SUPREME COURT

Public officers — What constitutes — Instrumentality exercising public functions.

5. An instrumentality empowered and authorized to be compensated out of public funds for the execution of the purposes of a statute, in order to further the material and permanent interests and welfare of the entire state, is a public officer, p. 272.

Public officers — Incapacity of corporation to qualify.

6. A corporation created under the general incorporation laws as a non-stock, nonprofit-sharing corporation, for the purpose of promoting and encouraging municipal and cooperative acquisition and operation of public utilities and of engaging in the utility business as a holding or an operating company, and designated and selected as an instrumentality for the execution of certain duties and functions provided by statute, with appropriations by the legislature, is incapable of qualifying as a public officer, since it cannot take the constitutional oath and it is not an elector of the state eligible to hold public office therein; and therefore it cannot assume the duties and functions of a public office in the state, p. 272.

Constitutional law, § 9 — Delegation of powers — Corporation to promote public ownership.

7. A statute is invalid which delegates to a corporation (incorporated under the general incorporation laws as a nonstock, nonprofit-sharing corporation) the authority and duty to execute on behalf of the state, with the aid of legislative appropriations, statutory provisions necessitating the exercise of discretion and responsibility incidental to the governmental powers in the promotion and encouragement of municipal power districts and cooperative associations or nonprofit corporations engaging in public utility business, p. 272.

[January 11, 1938.]

A PPEALS from orders and writs of mandamus to compel the auditing of accounts for indebtedness incurred by the Wisconsin Development Authority; orders reversed, peremptory writs vacated, and cause remanded with directions.

On petitions filed in three actions by the Wisconsin Development Authority, a Wisconsin corporation, as relator, and in which V. M. Murray joined in one action, and Norris E. Maloney joined in another action, and Howard I. Tuttle, Inc., joined in the third action, alternative writs of mandamus were issued to compel the defendant, Theodore Dammann, as secretary of state, to audit under Chap. 334, Laws 1937, St. 1937, §§ 20.514, 199.01 to 199.07, accounts for indebtedness incurred by the Wisconsin Development Authority to each of the

parties who joined with it as relators. The defendant filed a motion in each case to quash the alternative writs, and upon entry of orders denying those motions and ordering the issuance of peremptory writs, and the issuance of such writs, the defendant appealed from those orders and writs.

APPEARANCES: Harold E. Stafford, of Chippewa Falls, for appellant; Orland S. Loomis, Attorney General, John Ernest Roe, Special Counsel, and Norris E. Maloney, both of Madison (Charles B. Perry, of

Milwaukee, of counsel) for respondents; R. M. Rieser, J. W. Rector, Roy G. Tulane, and William Ryan, all of Madison (Olin & Butler, of Madison, of counsel), amici curiæ.

FRITZ, J.: The ultimate issues involved on these appeals are: (1) Was Chap. 334, Laws 1937, Stats. 1937, §§ 20.514, 199.01 to 199.07, validly enacted by the legislature; and (2) is that act constitutional.

[1-3] The appellant questions the validity of the enactment of Chap. 334, Laws 1937, by the legislature because on June 16, 1937, as appears from the *Senate Journal*, that house attempted to act on the passage of the bill; one purpose of which was to make an appropriation, with but seventeen members present, although on the passage of such a bill in the senate the attendance of at least twenty members was required to constitute a quorum, under § 8, Art. 8, Wis. Const., which, so far as material here, reads: "On the passage in either house of the legislature of any law which . . . makes . . . an appropriation of public . . . money . . . three-fifths of all the members elected to such house shall in all such cases be required to constitute a quorum therein."

Upon fifteen of the members then present voting for the passage of the bill, it was duly declared passed; a motion for reconsideration was made and defeated; and a motion was adopted ordering the bill messaged immediately to the assembly. Before that was done in fact, a motion was made in the senate on June 18, 1937,

to reconsider the action by which the bill was ordered messaged to the assembly, and it was also proposed to expunge the record of the vote purporting to pass the bill from the *Journal*. Then, on a point of order, it was asserted that because less than the number required by the Constitution to constitute a quorum on the passage of an appropriation bill were recorded on the question of its passage, the attempted passage was invalid, and the action ordering the messaging of the bill to the assembly was also void. The president pro tempore held the point of order well taken; that the attempted passage of the bill was a nullity; and that it reverted to its former status of but an engrossed bill. Thereafter, the senate and also the assembly duly passed it with the required quorum in attendance in each house, and it was duly approved by the governor and published.

As there were not sufficient members in attendance in the senate on June 16, 1937, to constitute the quorum required by § 8, Art. 8, Wis. Const., to act on an appropriation bill, there was not then in attendance a legislative body capable under the Constitution of transacting legislative business in relation to the passage of the bill; and therefore those present were wholly without power to take any such legislative action in relation thereto. Under Rule 16 of the senate, its parliamentary practice was governed by the rules in Jefferson's Manual, one of which reads: "Effect of No Quorum on Questions. When from counting the house on a division it appears that there is not a quorum, the matter continues exactly in the state in which it was before the

WISCONSIN SUPREME COURT

division and must be resumed at that point on any future day."

In an explanation of that rule in Cushing's Parliamentary Law, in §§ 369 and 370, it is stated: "When, upon a division, it appears, that a quorum is not present, the question, upon which such division occurs, ordinarily remains undecided. . . ."

Consequently, the attempted passage of the bill in the senate on June 16, 1937, was a nullity. It was as a thing not done at all; and not an act that was but defectively performed by a body possessing the power and the right to perform it perfectly. *Webb v. Carter* (1913) 129 Tenn. 182, 165 S. W. 426; *Wilson v. Atwood* (1935) 270 Mich. 317, 258 N. W. 773; *Heiskell v. Baltimore* (1885) 65 Md. 125, 4 Atl. 116, 57 Am. Rep. 308. Therefore, the status of the bill in the senate continued as it was before the votes were taken on June 16, 1937, until that house subsequently acted effectively by voting the passage of the bill when the required quorum was in attendance. By that passage and the subsequent valid action by the assembly and the governor, Chap. 334, Laws 1937, was duly enacted.

[4-7] For consideration of the questions raised as to the constitutionality of Chap. 334, Laws 1937, it suffices to note the following matters: These actions were brought to test the validity of that act by seeking to compel the secretary of state to audit thereunder accounts for indebtedness incurred by the Wisconsin Development Authority (hereinafter called the W. D. A.) to V. M. Murray, Norris E. Maloney, and Howard I. Tuttle, Inc. The accounts are for services performed for the W. D. A. since

the enactment of the act (1) by V. M. Murray in conducting a survey of the resources and facilities of the state for the production, transmission, distribution, and furnishing of light, heat, water, and power in the state; (2) by Norris E. Maloney in promoting and encouraging the creation of a coöperative association in Crawford county to engage in furnishing light, heat, water, and power, and the dissemination of information in relation thereto; and (3) by Howard I. Tuttle, Inc., for mimeographing form letters addressed to the executive officer of each of 508 incorporated cities and villages in the state for the purpose of promoting municipal ownership of public utilities, and the dissemination of information relative thereto.

Prior to the enactment of Chap. 334, Laws 1937, the W. D. A. was incorporated under the general incorporation laws of Wisconsin as a non-stock, nonprofit-sharing corporation for the purpose of promoting and encouraging municipal and coöperative acquisition and operation of all forms of public utilities, and of engaging in the utility business as a holding or as an operating company. Under its articles of organization, membership in the corporation is not open to the public. Neither its members nor its officers are to be chosen by the electors, or appointed by any officer of the state. They are not required to take the oath of office prescribed by § 28, Art. 4, Wis. Const.; and there is no limitation upon the salaries which may be paid to them or the corporation's employees. By § 199.01 of Chap. 334, Laws 1937 (creating §§ 199.01 to 199.07 and 20.514, Stats.) the W.

D. A. was "designated and selected as an instrumentality for the execution of certain duties and functions provided in § 199.03"; and by § 20.514, Stats., there was appropriated to the W. D. A. \$10,000, and "annually thereafter, beginning July 1, 1937, sixty thousand dollars for the execution of its duties and functions under § 199.03." In § 199.03, Stats., it was provided that "Subject to the provisions of § 199.02" the W. D. A. "shall use and expend the funds appropriated to it by § 20.514 solely for the execution of the following duties and functions." Those duties and functions are stated in subdivision (1) to (7) of § 199.03, Stats., and may be summarized as follows:

"A. To promote or encourage the organization or creation of (1) municipal power districts under Chap. 198, or (2) of coöperative associations or nonprofit corporations, to engage in the production, transmission, distribution, or furnishing of light, heat, water or power, or the rendering of street or interurban railway or bus services;

"B. To promote or encourage the acquisition, ownership, construction, operation, or management of any plant, equipment or facilities, or part thereof for the production, transmission, distribution, or furnishing of light, heat, water or power, or the rendering of such railway or bus services, (1) by any coöperative association or nonprofit corporation or any group or combination thereof; (2) or by any municipality, municipal power district, or other political or governmental units of the state, or any group or combination thereof;

"C. To (1) survey the resources

and facilities, existing and potentially available, for the production, transmission, distribution, and furnishing of light, heat, water, and power in the state; and (2) make studies and surveys (a) for the economical development, use and conservation thereof as will best provide an abundant and cheap supply of these essential services for industrial, agricultural, commercial, governmental, transportation, and domestic purposes, and (b) for the coördination of water power and fuel power developments with the regulation of rivers by storage or otherwise for water supply, navigation, flood control, soil conservation, public health, recreational, and other uses;

"D. To collect and disseminate information and engage in research, planning, and educational activities necessary and useful for the execution of the W. D. A.'s duties and functions under § 199.03, Stats.; and to coöperate with the Federal government and its agencies in the execution of those duties and functions."

It is further provided in the act that the W. D. A. shall not use or expend any of the funds appropriated to it by the state for any activities or functions which would be repugnant to the state Constitution if carried on by the state, and that the state shall never be liable or responsible for any debt or obligation of that corporation, § 199.02, Stats.; that the accounts and records of the W. D. A. shall be so kept as to clearly distinguish the uses made of funds appropriated by the state, and all disbursements of funds appropriated by the state shall be audited by the secretary of state in the manner provided by law, § 199.05,

WISCONSIN SUPREME COURT

Stats.; and that the W. D. A.'s authority to expend funds appropriated by the state shall terminate in the event its articles of organization shall be amended so as to provide profits for its members, directors, or officers, or so as to change the mode or manner of distribution of its property upon dissolution, or if its articles of organization shall at any time authorize it to engage in, and pursuant thereto it does engage in, any activities except those provided by § 199.03, Stats., and those which are part of the acquisition, ownership, construction, operation, or management of any plant, equipment, or facilities for the production, transmission, distribution, or furnishing of light, heat, water, or power, the transmission of telephone messages, or the rendering of street or interurban railway or bus services, and the furnishing of technical, supervisory, or management services therefor. Section 199.01, Stats.

The defendant contends that Chap. 334, Laws 1937, is unconstitutional because it purports to delegate the execution or administration of a statute to the W. D. A., a privately controlled private corporation, organized under our general incorporation laws, which do not authorize incorporation for the purpose of holding public office or empower a corporation to do so. It is fundamental that under our constitutional system the governmental power to execute the laws is vested in the executive department of the state, and can be exercised only by duly constituted officers thereof. By the act in question it was, however, clearly intended to vest the execution thereof in the W. D. A. Thus, it is provided

therein that the W. D. A. "is hereby designated and selected as an instrumentality for the execution of certain duties and functions provided in § 199.03," § 199.01, Stats.; and that it "shall use and expend the funds appropriated to it by § 20.514 solely for the execution of the following duties and functions," § 199.03, Stats. And that those duties and functions were considered governmental in character clearly appears by implication from the provision that the W. D. A. "shall not use or expend any of the funds appropriated to it by the state for any activities or functions which would be repugnant to the Constitution of the state if carried on by the state," § 199.02, Stats. The proper performance of the duties and functions thus delegated to the W. D. A. necessitates the exercise of discretion and responsibility incidental to the governmental power under consideration that cannot legally be delegated otherwise than to public officers, acting for and as a part of the government under such conditions and control that "they can approach and determine questions impartially, unbiased and without adverse personal interest." *Wagner v. Milwaukee* (1922) 177 Wis. 410, 418, 188 N. W. 487, 490. On the one hand the act appropriates state funds for the use of the W. D. A. in executing its duties and functions thereunder, without any allocation by the legislature or any authorized public officer as to what portions of the funds are to be used by the W. D. A. for one or the other of the activities in which it is to engage in the administration of the act. Likewise, there is no legislative direction as to what circumstances or

conditions are to govern that corporation's determination as to the order in which or the extent to which the W. D. A. may engage in those activities, or the methods, means, or agencies by which it will perform them; or what localities or portions of the state, or which of the specified forms of public utility ownership or operation, etc., otherwise than by private corporations, it will favor by its performance of those activities with the use of the appropriated funds. On the other hand, there is no provision in the act directing or authorizing the execution or administration thereof by any public officer or authorizing or requiring him even to supervise the execution or administration by the W. D. A. (which is only required, if and after it acts, to report annually to the governor its activities with the use of appropriated funds; and to have the expenditure thereof audited by the secretary of state). Consequently, there is under the act virtually a complete abdication to the W. D. A. of the state's sovereign power which is exercised in the execution of a statute, including the discretion and responsibilities incidental thereto. It is obvious that, if the act had directed the execution thereof by the governor or any other state officer, his performance of the duties and functions delegated thereby to the W. D. A. would clearly be in the exercise of that sovereign power. Likewise, performance thereof by that corporation under the act as enacted would be in the exercise of that power. Thus, it alone was intended to be the instrumentality authorized under the act to accomplish the purposes thereof, which the relators contend are public purposes.

If they were but private purposes, the appropriation and use of state funds therefor would be invalid.

Assuming (without, however, here deciding) that the purposes in question are public because the execution thereof is to further the material and permanent interests and welfare of the entire state, and is not of merely private, local, or temporary concern, then the instrumentality so empowered and authorized to be compensated out of public funds is a public officer, under the definition of that term in *Hall v. State* (1875) 39 Wis. 79, 86, to wit: ". . . when public functions are conferred by law upon certain persons elected by the people or appointed by the legislature, if those functions concern the general interests of the state, and are not of a nature merely local or temporary, such persons are public officers, especially if they are paid a salary for their services out of the public treasury."

In quoting that definition with approval in *Re Appointment of Revisor* (1910) 141 Wis. 592, 608, 124 N. W. 670, 675, 18 Ann. Cas. 1176, the court said: "There have been many attempts to accurately define an office and differentiate it from a mere employment, but it is manifest that the line is not easy to draw."

That difficulty was encountered in the following cases, cited by the relators in contending that the duties and functions delegated and to be performed under the act are not such as would constitute the instrumentality which is to perform them a public officer, to wit: *United States ex rel. Noyes v. Hatch* (1842) 1 Pin. (Wis.) 182; *United States ex rel. Boyd v. Lockwood* (1843) 1 Pin. (Wis.)

WISCONSIN SUPREME COURT

359; *Butler v. Regents of the University* (1873) 32 Wis. 124; *Weise v. Board of Supervisors of Milwaukee County* (1881) 51 Wis. 564, 8 N. W. 295; *State ex rel. Brown County v. Myers* (1881) 52 Wis. 628, 9 N. W. 777; *Sieb v. Racine* (1922) 176 Wis. 617, 187 N. W. 989. Those cases are, however, not in point because there was not involved therein any such delegation of the governmental power to execute or administer a statute as is involved in the case at bar.

For the same reason, such cases as *Wisconsin Industrial School for Girls v. Clark County* (1899) 103 Wis. 651, 79 N. W. 422; *Loomis v. Callahan* (1928) 196 Wis. 518, 220 N. W. 816, are not in point. They did relate to services performed in the discharge of a public, governmental purpose, but the performance thereof by a private corporation was not the execution or administration of a statute in the exercise of governmental power. As was said in *Fox v. Mohawk & H. River Humane Society* (1901) 165 N. Y. 517, 525, 59 N. E. 353, 355, 51 L.R.A. 681, 80 Am. St. Rep. 767, "Of course, the state or any of its subdivisions may employ individuals or corporations to do work or render service for it; but the distinction between a public officer and a public employee or contractor is plain and well recognized." But the execution of the duties and functions of the W. D. A. under the act would not be merely in the nature of work or service performed by an employee or a contractor in the execution of a public project in relation to which the state's administrative functions to determine the character, scope, and what shall constitute performance, etc.,

22 P.U.R.(N.S.)

thereof have been duly exercised, or reserved for control by its officers. The state can have a private instrumentality construct a highway at public expense when the location, dimensions, and similar essential matters in relation thereto have been determined by or are under the control or supervision of an official vested with its governmental powers in that regard. But the state cannot delegate the determination of such essential matters to an unofficial, private instrumentality with but the direction that it shall use appropriated state funds for the purpose of locating and constructing public highways of some kind, somewhere within the state.

In addition to the reasons stated above for confining the delegation of such duties and functions as the W. D. A. was to execute to public officers, there is in point the statement in *People ex rel. Detroit & H. R. Co. v. Salem* (1870) 20 Mich. 452, 459, 4 Am. Rep. 400, that: "For the expenditure of public money the Constitution and laws provide public officers and put them under adequate control and security. The money of the people belongs in the custody of the agents of the people. Governments cannot delegate public responsibilities to private and irresponsible hands."

Among the constitutional provisions and laws designed to further such control and security is § 28, Art. 4, Wis. Const., which requires all officers, "except such inferior officers as may by law be exempted," to take an oath to support the Federal and state Constitutions, "and faithfully to discharge the duties of their respective offices to the best of their ability."

Likewise, to that end, it is "a funda-

mental principle of our government that a person not an elector of the state is ineligible to hold a public office therein, although our Constitution and statutes do not expressly so ordain." *State v. Trumpf* (1880) 50 Wis. 103, 108, 5 N. W. 876, 878, 6 N. W. 512; *State ex rel. Off v. Smith* (1861) 14 Wis. 497; *State ex rel. Schuet v. Murray* (1871) 28 Wis. 96, 9 Am. Rep. 489. As the W. D. A. is incapable of qualifying in either of those respects, it cannot assume the duties and functions of a public office in this state. Moreover, there is no provision in the general incorporation laws under which the W. D. A. is organized as a private corporation, that authorizes such a corporation to receive or hold public office, or to exercise the duties or functions thereof. Therefore, and in view of the rule that "corporations are the creatures of the state and exist with such powers and such powers only as the laws of the state of their creation confer upon them," *Fleischer v. Pelton Steel Co.* (1924) 183 Wis. 451, 458, 198 N. W. 444, 446, the W. D. A. is likewise incapable to receive or assume the official authority to execute the duties and functions delegated to it by act. Under those circumstances, the decision in *Dade County v. State* (1928) 95 Fla. 465, 476, 479, 116 So. 72, 76, is applicable. The statute then under consideration purported to confer upon a nonofficial commission authority to make plans and estimates for an ocean front protection and improvement as a public purpose and burden; and to receive and disburse county funds therefor. In holding the attempted delegation of governmental power invalid, the court said:

"The project contemplated by the act is an administrative function requiring the exercise of sovereign governmental powers. Such powers may legally be exerted only by officials duly commissioned for that purpose. The Constitution does not contemplate that essential governmental power or authority may be exercised by a corporate agency whose members are not duly commissioned officers. . . .

"The Constitution contemplates that administrative functions that are governmental in their nature involving discretion and responsibility, and not merely clerical or expert assistance, shall be performed by duly commissioned officers."

See, also, *Schieffelin v. Hylan* (1923) 236 N. Y. 254, 140 N. E. 689, 691.

It follows that the attempted delegation to the W. D. A. of the authority and duty to execute the act on behalf of the state renders it invalid; and that therefore the orders under review must be reversed, and the peremptory writs of mandamus vacated.

In the excellent briefs filed herein, other grounds, upon which the validity of the act is questioned, are also given extended and thorough consideration. The questions raised in relation to some of those grounds are of great importance and highly controversial. But as the incapability of the W. D. A. to receive the authority and to execute the act renders the provisions thereof invalid to such an extent that there remain none by which the legislative intent and purpose thereunder can be accomplished, and as the same legal questions may not arise under an enactment with due regard to the fundamentals of our

WISCONSIN SUPREME COURT

constitutional system, it is considered unnecessary and inadvisable to decide them until they are presented in a case in which they can be determined under the facts and circumstances then involved.

Orders reversed, and peremptory writs vacated; and causes remanded, with directions to enter an order granting the defendant's motion to quash the alternative writ of mandamus in each action.

OREGON PUBLIC UTILITIES COMMISSIONER

Re West Coast Telephone Company

[U-F-764, P.U.C. Or. Order No. 5116.]

Discrimination, § 165 — Telephones — Free toll service.

1. Free toll service between small telephone exchanges which do not pay their way discriminates against the metropolitan user who in his own exchange does not have the benefit of free tolls with adjoining exchanges, p. 282.

Discrimination, § 165 — Telephones — Free interexchange service.

2. Free service between five telephone exchanges in an area substantially 21 miles by 18 miles was held to be discriminatory not only against users of the company's service not accorded such free tolls, but as well against the users of telephone service in the state in general, p. 283.

Discrimination, § 10 — Commissioner's jurisdiction — Effect of contract — Free interexchange service.

3. The Commissioner can give no consideration to contracts entered into during consolidation of telephone companies providing for free service between telephone exchanges, which contracts would tend to set aside the Commissioner's jurisdiction and enforce a continued discrimination, p. 283.

Rates, § 582 — Telephones — Standard tolls.

4. Intrastate tolls should be made as nearly standard as possible, p. 286.

[December 14, 1937.]

INVESTIGATION of proposed revision of telephone rates; proposed rate schedules approved in modified form.

WALLACE, Commissioner: West Coast Telephone Company, respondent herein, is the second largest telephone company rendering service in Oregon. As of December 31, 1936, 22 P.U.R. (N.S.)

it served 13,928 customers through four general districts and 42 exchanges. It has in service 1,955 miles of pole line, carrying 10,967 miles of wire and 16,634 miles of wire in ca-

RE WEST COAST TELEPHONE CO.

ble. The four districts and their exchanges are as follows:

Forest Grove district	16 exchanges
La Grande district	11 exchanges
Marshfield district	10 exchanges
Klamath district	5 exchanges
Total	42 exchanges

There are no company-owned toll circuits between districts. The company's largest exchanges are as follows:

La Grande	1,860
Marshfield	1,823
McMinnville	1,048
Hillsboro	831
Forest Grove	737
North Bend	735
Gresham	730
Coquille	728
Total	8,492

Sixty per cent of the company's subscribers are served by these eight metropolitan exchanges, some of the smaller remaining exchanges having as few as 13 company-owned stations.

The West Coast Telephone Company, a Washington corporation, was organized May 31, 1928, having previously effected a consolidation with the Puget Sound Telephone Company at Everett, Washington, and the Oregon Telephone Company and the Coos and Curry Telephone Company, both of Marshfield, Oregon. In the interim, West Coast Telephone Company has acquired numerous small operating telephone companies in the states of Oregon and Washington.

From its inception, it was the practice of West Coast Telephone Company to file with the Commissioner its formal acceptance of the tariffs of the dozen or more small companies acquired in Oregon, adopting them as the tariffs of the West Coast Tele-

phone Company, and by supplements to these various tariffs, adopted by the board of the West Coast Telephone Company, to make such supplements the tariffs of the West Coast Telephone Company.

There were no standard rules or regulations for any of the four districts into which the company's service was divided comparable in any way to those customarily filed by telephone companies of the magnitude of the West Coast Telephone Company. The practice of West Coast Telephone Company of filing what were often indeterminate and inconclusive supplements to indeterminate and inconclusive tariffs, resulted in such confusion that, on July 11, 1935, the Commissioner formally advised West Coast Telephone Company of the condition of their tariffs in his file, and insisted on the presentation of a comprehensive and standard tariff covering all districts and brackets of the company's service in the state of Oregon, this tariff to be accompanied by standard service rules and regulations for each of the districts, complying with the Commissioner's rules and regulations therefor.

At this time, West Coast Telephone Company's Tariffs in the Commissioner's files were in six volumes, nine tariffs, covering rates, rules, and practices of twelve companies, with more than 100 supplements thereto, some 90 of which were effective. The confusion and irregularities incident to such procedure need no comment.

In compliance with the Commissioner's instructions, on September 1, 1936, West Coast Telephone Company filed with the Commissioner its P. U. C. Or. Tariff No. 1, one vol-

OREGON PUBLIC UTILITIES COMMISSIONER

ume, embodying rates, rules, and regulations for all districts and exchange areas within the state of Oregon. This filing canceled the previously filed tariffs and supplements of all the small component units of the company's service, and became effective as of October 1, 1936. This first comprehensive survey of the company's tariffs and rules disclosed many inequities, discriminations, and lax practices, all of which this new tariff sought to correct.

Its net effect was to reduce the company's revenues, on the basis of 1936 performance, in the sum of \$5,418 annually throughout its service area in the state of Oregon. Naturally, in the removal of discriminations and irregularities, it effected increases in some instances. Its effect on Oregon territory is as follows:

	Increases	Reductions
Residence extension reduction		\$164.40
Joint user reduction		720.00
Hand-set reductions		1,518.00
Gold Beach-Brookings desk-set increase	\$35.40	
Service connection charge reduction		1,300.00
Lodge and church service reduction		300.00
Gardiner increases	399.00	
Forest Grove free service trunk increases	3,600.00	
Forest Grove toll reduction		2,000.00
La Grande district report charge increase	100.00	
Marshfield district toll decrease		3,000.00
Klamath district toll decrease		450.00
Night message decrease—La Grande and Forest Grove districts		100.00
Totals	\$4,134.40	\$9,552.40
Net decrease		\$5,418.00

The greatest increase involved was in the Forest Grove district where free toll service between exchanges

had been rendered for years. This tariff sought to place in effect a toll between these exchanges, the estimated revenue increase being \$3,600 annually. In two instances, Gresham and Corbett, and Gresham and Damascus, free toll service was rendered, although Corbett and Damascus exchanges belong to other companies.

The next greatest increase contemplated was at Gardiner, which is furnished service from the Reedsport exchange at rates well below those charged in Reedsport, and is contingent upon the conversion of the old-style magneto service in Gardiner to common-battery service.

At the protest of several affected communities, the Commissioner, on January 15, 1937, by his Order P. U. C. Oregon No. 3986, suspended certain parts of P. U. C. Or. Tariff No. 1 of the West Coast Telephone Company, and supplements filed thereto on January 1, 1937. In the meantime, the estimated annual increase in the Forest Grove district had, by one of these supplements, been reduced from an estimate of \$3,600 annually to \$2,450 annually.

The effect of the Commissioner's Order No. 3986, suspending this proffered P. U. C. Or. Tariff No. 1, was to give to the user all the reductions involved therein, and to deny to the company the increases requested, and that condition maintains to this date.

Pursuant to the Commissioner's Order No. 3986, hearings were held before his examiners, as follows: At Beaverton on February 25th; at Gresham on March 1st; at Marshfield on March 4th, and at Gold Beach on March 5th.

RE WEST COAST TELEPHONE CO.

APPEARANCES were entered: E. R. Hannibal, Vice President and General Manager, and G. E. Krieger, Sales & Traffic Manager, for West Coast Telephone Company; ten residents, for the Beaverton District; C. G. Schneider, City Attorney, and twelve subscribers, for the city of Gresham; (no representation), for the Marshfield district; Collier H. Buffington, Attorney, also appearing for Gold Beach Chamber of Commerce, Curry County Bank, Trans-Pacific Lumber Company, People's Company of Curry County, and Kel-Cur Corporation, for the city of Gold Beach; Herbert E. Dewart, Attorney, for Gold Beach Chamber of Commerce; Honorable B. R. McCabe, District Attorney, Gold Beach, for Curry county.

Voluminous testimony was offered by the respondent and by representatives of the various communities affected, and, in each instance, exhibits were presented by West Coast Telephone Company showing the effect of the new tariff and its supplements upon the business of the various exchanges.

At the Beaverton hearing, West Coast Telephone Company's Exhibit "No. 1" showed the "Results of Operations for the Year Ending December 31, 1936," as follows: [See table below.]

Of the five exchanges covered in this exhibit, Beaverton alone showed

	Beaverton	Tigard	Sherwood	Stafford	Scholls
Total revenues	\$13,306.73	\$7,898.88	\$3,676.10	\$1,421.55	\$3,411.21
Total operating exp.	11,991.07	8,850.07	4,248.80	3,132.47	4,501.75
Net operating income	\$1,315.66	\$951.19*	\$572.70*	\$1,710.92*	\$1,090.54*

* Denotes figures in red.

a profit, the other four showing substantial losses for the year. The rate of return at Beaverton, the profitable exchange, was 0.16 per cent. Deducting the nominal profit made at Beaverton, the five exchanges showed an operating loss in this area for the year 1936 of \$3,009.69. The testimony showed the need for the conversion of some grounded circuits in this area, and for much badly needed maintenance work. It is evident that if the required work, badly needed in order to maintain good service, is to be done, it must be done from funds earned elsewhere in the company's service area.

At Gresham, West Coast Telephone Company's Exhibit "A-1" showed "Results of Operations for the Year Ending December 1, 1936," as follows:

	Gresham	Sandy
Total revenues	\$25,162.57	\$3,380.44
Total operating exp. ..	24,640.11	3,658.89
Net operating income	\$522.46	\$278.45*

* Denotes figures in red.

This exhibit showed a loss of \$278.45 for the Sandy exchange, and a net operating income of \$522.46 for the Gresham exchange, a rate of return for the latter of 0.18 per cent.

At Marshfield, West Coast Telephone Company's Exhibit "B-2" showed "Results of Operations for

OREGON PUBLIC UTILITIES COMMISSIONER

the Year Ending December 31, 1936," as follows:

	Reedsport	Marshfield District
Total revenues	\$9,381.77	\$205,403.38
Total operating exp. ...	10,424.28	161,915.32
Net operating income	\$1,042.51*	\$43,488.06

* Denotes figures in red.

This exhibit shows the Reedsport exchange to have suffered an operating loss during the year of \$1,042.51, while the Marshfield district, as a whole, showed a profit of \$43,488.06, constituting a return of 4.23 per cent on the company's reported fixed capital.

At Gold Beach, West Coast Telephone Company's Exhibit "C-1" showed "Results of Operations for the Year Ending December 31, 1936," as follows:

	Gold Beach	Port Orford
Total revenues	\$5,001.16	\$2,412.53
Total operating exp.	5,971.55	2,261.12
Net operating income ..	\$970.39*	\$151.41

* Denotes figures in red.

This exhibit shows a loss in the Gold Beach exchange of \$970.39 for the year, and a net operating income for the Port Orford exchange of \$151.41, constituting a rate of return of 1.12 per cent on the company's fixed capital.

This exhibit also shows results of operations for the year ending December 31, 1936, for the entire state of Oregon, as follows:

	State of Oregon
Total revenues	\$565,626.54
Total operating exp.	453,512.36
Net operating income	\$112,114.18

The rate of return for the year be-
22 P.U.R. (N.S.)

ing 3.42 per cent on the company's reported fixed capital for the state of Oregon.

It would appear from the above that even though the company's reported fixed capital were reduced by 50 per cent, an excessive rate of return would not have been earned on the year's operations.

By order of the Commissioner No. 3955 (17 P.U.R. (N.S.) 26) West Coast Telephone Company is now setting up its plant accounts on the basis of original cost of construction, and is to present the Commissioner with depreciation studies in compliance with his Order No. 3971. Until this information has been compiled, presented, and verified, the Commissioner cannot speak with authority as to the general rate of return for the state of Oregon. However, it is obvious that, regardless of the reported fixed capital, in the various small exchanges actual and substantial losses have been incurred therein.

An exhibit presented by the Commissioner in U-F-704, which resulted in his Order No. 3971, shows the reported fixed capital of West Coast Telephone Company to be approximately \$703,000 in excess of the original cost of the various units now comprising the company's plant. Even with this amount deducted, and there being made a corresponding reduction in annual provision for depreciation, thereby increasing the company's net income to approximately \$144,000, in place of the actual reported income of \$112,000, the rate of return would still amount to only slightly more than 6 per cent.

[1] It is a demonstrated fact that

RE WEST COAST TELEPHONE CO.

smaller exchanges seldom pay their way. In order that an extensive telephone property may earn a fair return, it is always necessary that the rates in the metropolitan areas, the larger exchanges, shall be so fixed as to take up the losses in the smaller exchanges. In view of this condition, it is incumbent upon both the company and the Commissioner to see that no unnecessary burden of expense be incurred in these smaller exchanges. To permit this, means adding to the burden of the metropolitan user.

In view of the foregoing, it is evident that where a smaller exchange adds to the burden of its losses by rendering free toll service, that the burden must be carried, if the company is to earn a fair rate of return, by those in the metropolitan area. It is equally evident that to furnish free tolls between these smaller exchanges constitutes discrimination against the metropolitan user, who, in his own exchange, does not have the benefit of free tolls with adjoining exchanges.

The toll rates charged in many of the exchanges were badly out of line with those generally in effect in the state of Oregon and in the nation. This was particularly true in the Marshfield area, where one of the largest reductions effected by P. U. C. Or. Tariff No. 1 was in the toll rates. This reduction was badly needed by users of the Marshfield district, which is isolated and must conduct a great deal of its business with the state at large by means of long-distance telephone service. It is interesting to note the following: That in filing its P. U. C. Or. Tariff No. 1, West Coast Telephone Company estimated the de-

crease in revenues, on the basis of 1936 business, to be \$3,000 annually. A study of the actual toll tickets from the Marshfield district shows that, due to this reduction in toll rates under those prevailing to October 1, 1936, actually \$8,694.53 has been saved the users of toll service in the Marshfield area up to October 1, 1937.

The very substantial actual saving for the year over the estimated saving, is evidently due to the stimulated use of the toll service incident to the reduction.

P. U. C. Or. Tariff No. 1 for certain of the exchanges, and covering certain long-distance tolls, is standard as to rates with other long-distance tolls now effective in the state. For some of the exchanges, P. U. C. Or. Tariff No. 1 did not so standardize tolls, and a notable increase in the use of toll service indicates that to standardize rates for the remaining section would tend to increase use and revenues.

[2, 3] The Beaverton hearing developed that at present there are free tolls between Beaverton, Tigard, Stafford, Sherwood, and Scholls exchanges. An area substantially 21 miles north and south and 18 miles east and west now enjoys free tolls between the five exchanges which constitute it. There is not a comparable situation in the state of Oregon. Much testimony was introduced at the hearing to show that this entire area is one community of interest, and that free tolls are economically a necessity to the users within that area, and that such free tolls were provided for in the contracts covering the consolidation of the original small companies

OREGON PUBLIC UTILITIES COMMISSIONER

which owned lines in this area. The situation as it now exists constitutes discrimination not only against all other users of the company's service not accorded such free tolls, but as well is discrimination against the users of telephone service in the state of Oregon in general. The Commissioner can give no consideration to the alleged contracts entered into during consolidation, which contracts would tend to set aside his jurisdiction and enforce a continued discrimination.

The same conditions exist at Gresham where free toll is furnished to Sandy, and between Corbett and Damascus, which are foreign exchanges, not owned by West Coast Telephone Company. There is no reason, for instance, if free toll is to be furnished to these two foreign exchanges, why free toll should not likewise be demanded into Portland. West Coast Telephone Company, in its summary, estimates that if it is permitted to charge tolls between the nine exchanges in the Forest Grove district, the company would enjoy an annual increase in revenue of \$2,449.65, as shown on their exhibits presented. The Commissioner is convinced from the testimony given and examinations of his engineers, that no such increase will be involved, at least for a great many years, as a great deal of the present toll use is for casual conversation, which use would disappear when once a proper charge is made for it.

On April 1, 1937, the Commissioner conducted an informal hearing at Amity, and by stipulation of all parties at interest, and of record herein, it was agreed that the information obtained and the exhibits might be con-

sidered by the Commissioner in arriving at a determination in this proceeding.

P. U. C. Or. Tariff No. 1 increased tolls between Amity and McMinnville from 5 cents to 10 cents, the airline distance between the two exchanges being approximately 7 miles. Representatives of the Amity district present at the hearing felt that the 10-cent toll contemplated was excessive, and also expressed the thought that the Amity exchange rates are too high. These rates are:

Unlimited Residential Service

Individual line	\$2.50
Two-party line	2.25
Four-party line	2.00
Ten-party suburban line ... (new rate)	2.75
Multi-party suburban line	2.00

The above is for desk-set service.

Wall set rates for the same brackets 25¢ less.

There are now 152 telephones in this district, while in 1919 the Amity Mutual Telephone Company, the West Coast Telephone Company's predecessor, had 360 subscribers at rates of \$1.50 and \$1 per month.

Under the old Mutual Company agreement, the subscribers had to maintain and operate their own lines, the responsibility for which they are now relieved. There was no proof offered to show that the loss in users is due to the exchange rates. It might have been due to many other causes, physical or financial.

Supplement to P. U. C. Or. Tariff No. 1 proposes to raise exchange rates at Gold Beach, although P. U. C. Or. Tariff No. 1 itself had previously reduced them \$35.40 annually. The proposed supplement would now increase the exchange revenues in Gold Beach \$357 annually. It was pointed

RE WEST COAST TELEPHONE CO.

out that, on April 1, 1930, 24-hour service was established in the Gold Beach exchange area, where previously there was only a 13-hour service during week days and 2-hour service on Sundays and holidays. There is now 24-hour service throughout the week, at an added expense of \$964.32 annually, to cover which the tariffs have never been advanced. This is almost identically the amount of money (\$970.39) which the company lost in operation of the Gold Beach exchange for the year 1936.

Reports of record in the Commissioner's office since the hearing indicate that, through salary increases, an additional \$420 burden has been placed on the Gold Beach exchange. The question of salaries of the operators entered into discussion at all the hearings in this matter, and there was evidence produced tending to show that these salaries are not proportionate to those paid for similar service in other telephone exchanges in the state of Oregon. The Commissioner's file discloses since this hearing a complaint was received from the Honorable C. H. Gram, labor commissioner, and chairman of Oregon's State Welfare Commission, as to salaries paid in these exchanges, which are, in general, below those set as standard by the Welfare Commission. The company, itself, is cognizant of the fact, and has informed the Commissioner that it must meet raises in salaries of its exchange employees to comply with the standards set by Oregon's State Welfare Commission.

On September 1, 1936, there was filed by one of the major utilities rendering service in the state of Ore-

gon a basic mileage schedule for toll service, complying with the efforts of the Commissions of four western states and the Federal Communications Commission to standardize intrastate toll rates within those four states. This basic mileage schedule covers prescribed air-line mileages for intrastate tolls up to 480 miles. The fairness of these rates has been established by practice for more than a year now, and there is evidence to show that their application stimulates toll use and increases revenue, and that they would be a benefit if applied throughout the Oregon service area of West Coast Telephone Company.

Based on the foregoing, the Commissioner is of the opinion and finds:

I

That in its Oregon operations for the year 1936, West Coast Telephone Company failed to earn a fair return on its fixed capital invested in Oregon.

II

That the smaller exchanges, including Tigard, Sherwood, Stafford, Scholls, Sandy, Reedsport, and Gold Beach, were operated at a loss, totaling, according to the best information now before the Commissioner, \$6,436.70; that part of this loss is incident to free toll service between exchanges, as herein noted, and constitutes an undue and unfair burden on the general user of the company's service outside those exchange areas, and is unfair, unjust, and discriminatory to users in other exchanges, and tends to place an unnecessary and unjustifiable burden on the user in metropolitan areas.

OREGON PUBLIC UTILITIES COMMISSIONER

III

That additional revenues are necessary to properly operate and maintain the property, and to pay fair, just, and reasonable wages to those employed in rendering exchange service, and to provide an adequate sinking fund.

IV

That discrimination exists when the rates for exchange service vary between adjacent exchanges connected with free toll points, and that the cost of operating and maintaining service between exchanges should be borne by the users of the toll service and not by users far removed; that free tolls between the exchanges of the West Coast Telephone Company and the Damascus Telephone Company and the Columbia Telephone Company in Corbett, are unjust, unfair, and discriminatory, and should not be permitted.

V

That there exists no legitimate excuse for five exchanges in that portion of the Forest Grove district, comprising Scholls, Sherwood, Tigard, Stafford, and Beaverton, and that, in the interests of economy and better service, the exchange at Scholls should be discontinued at the earliest possible date, and the users of that exchange connected to other exchanges in such a manner as to place the least possible burden on the present users of the Scholls exchange.

VI

That upon conversion from magneto service to common battery service, there will exist no further reason

22 P.U.R. (N.S.)

for a discrimination in favor of those users of Reedsport exchange service now located in Gardiner, and that when such conversion shall be made, the rates should be made identical for the entire Reedsport exchange area.

VII

[4] That it is in the interests of all the users of West Coast Telephone Company's service, and of the users of telephone service in the state of Oregon, that intrastate tolls be made as nearly standard as possible, and that the application of such standard toll rates, applied to the 1936 business of the Marshfield area of the company, will amount to an estimated reduction in tolls of \$607.86 annually, and will, at the same time, tend to stimulate toll business.

VIII

That the Gold Beach exchange is now being operated at a heavy loss, and that an increase in the exchange rates is just and advisable, in order that there may not be discrimination between the rates charged for 24-hour service, and the rates charged in exchanges of similar size and under conditions of similar service in the company's Oregon area.

IX

That P. U. C. Or. Tariff No. 1 of the West Coast Telephone Company, and the supplements thereto, now under suspension by the Commissioner's order, are fair, just, and nondiscriminatory, when amended as hereinafter provided, and when modified as required herein, should be accepted by the Commissioner as the rates, rules,

RE WEST COAST TELEPHONE CO.

and regulations of the West Coast Telephone Company for its Oregon service areas.

X

That the salaries paid in many of

the company's smaller exchanges are inadequate, and not in keeping with the standards of Oregon's State Welfare Commission, and that sufficient revenues should be provided to raise these salaries to such standards.

KANSAS STATE CORPORATION COMMISSION

Residents of Community of Jarbalo

v.

The Kansas Electric Power Company

[Docket No. 17930.]

Certificates of convenience and necessity, § 127 — Interpretation — Provision as to other available service.

A provision in a certificate of convenience and necessity that the certificate should not authorize an electric utility to render service in those parts of designated counties wherein electric service is available from other sources or wherein service may be more economically rendered from other sources is to be construed as intending that electric service is only available from other sources when those sources are under the jurisdiction and regulation of the Commission and are affirmatively and actively complying with the orders and regulations of the Commission and in addition thereto furnishing adequate and sufficient service in the territory.

[January 29, 1938.]

PETITION *by residents of a community requesting to be served with electric service of a designated power company; power company required to furnish service.*

By the COMMISSION: Now on this 29th day of January, 1938, the above-entitled matter comes regularly on for consideration and determination by the Commission. After due consideration of the evidence introduced at the hearing thereon and after being fully advised in the premises the Commission finds:

That The Kansas Electric Power Company is a corporation operating under the laws of the state of Kansas as a public utility and subject to the jurisdiction and regulations, and certificates issued by this Commission.

That the Commission did on the 26th day of February, 1936, issue to The Kansas Electric Power Company

KANSAS STATE CORPORATION COMMISSION

a certificate of convenience and authority to transact the business of an electric public utility in Leavenworth county, Kansas, which contained the following provision:

"Provided, that such certificate shall not authorize applicant to render service in those parts of the counties heretofore set forth wherein electric service is now available from other sources or wherein service may now or hereafter be more economically rendered from other sources."

That the unincorporated village of Jarbalo is located in said Leavenworth county and is in close proximity to the lines and equipment of said utility.

That it is at the present time economically feasible for The Kansas Electric Power Company to give electric service in the town of Jarbalo and the territory adjacent and contiguous thereto, at rates now on file with this Commission which are applicable to such service.

That the Commission did by the language contained in such certificate as quoted above intend, and declare, that electric service is only available from other sources when those sources are under the jurisdiction and regulation of the Commission and are affirmatively and actively complying with the orders and regulations of said Commission and in addition thereto furnishing adequate and sufficient service in such territory. That public convenience and necessity would be promoted by The Kansas Electric Power Company furnishing electric

service at Jarbalo. That on said date no reasonably adequate and sufficient service was available at Jarbalo and thereby said certificate did authorize the above-named utility to serve Jarbalo so as to provide reasonably adequate and sufficient service at that point without regard and in addition to any service being offered by other electric utilities. That at the present time no other electric public utility can render electric service at Jarbalo more economically than said The Kansas Electric Power Company. That for these reasons the certificate heretofore granted to The Kansas Electric Power Company does authorize the same to serve Jarbalo, Kansas, and the territory adjacent thereto.

That since it is economically feasible to furnish electric service at Jarbalo, and since The Kansas Electric Power Company had a certificate to serve said territory the application should be granted and said utility should be required and ordered to furnish electric service at Jarbalo and the territory contiguous and adjacent thereto.

It is therefore by the Commission *ordered*: That The Kansas Electric Power Company be and the same is hereby required to furnish electric service to all those desiring to purchase the same in the town of Jarbalo, Leavenworth county, Kansas, and the territory contiguous and adjacent thereto at rates on file with this Commission.

By the Commission it is so *ordered*.

Industrial Progress

Major Appliance Promotion Based on Electric Bill

WITH the slogan "Your Residential Electric Bill Is Worth Money to You," a major promotion of electric appliance sales is being carried on by the Consolidated Edison Company of New York, Inc., and coöperating appliance dealers.

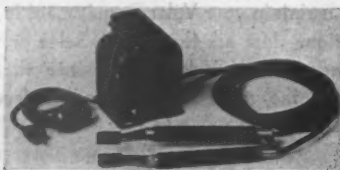
Under this plan the dealers make an allowance against the purchase price of an appliance of one-half cent a kilowatt hour on the quantity of electricity used by a residential customer as shown on his bill up to 25 per cent of the price of the appliance. This allowance, or "merchandise credit," is earned only on a bill for the previous month's use of electricity; that is, the bill must be presented to the dealer within thirty days of the last meter reading date appearing on it. The merchandise credit is not cumulative. Thus a residential customer having a bill for 100 kilowatt hours used during the previous month would be entitled to a merchandise credit or allowance of 50 cents toward the purchase of any electrical appliance costing \$2 or more.

The plan is being advertised extensively and appliance dealers are taking active part in the promotion. For them it means increased sales of merchandise; for the utility it means a greater number of energy-using appliances on its lines, hence larger sales of current. Campaigns for the sale of specific appliances at bargain prices will be tied into this promotion.

"Midget" Soldering Pliers

IN answer to the increasing demand for a smaller low capacity soldering unit, that would heat electrically, sweat joints without unsweating adjacent connections, and eliminate the open flame hazards, the Ideal Comutator Dresser Co., 1558 Park Avenue, Sycamore, Illinois, has introduced the new No. 2 "Midget" Type Thermo-Grip Pliers.

This tool has been designed especially for



Thermo-Grip Electric Pliers

soldering small objects and for work in restricted spaces and for ease of operation. A few typical applications are: for soldering

small lugs and terminals up to 150 amp., close quarters on switchboards, motors, generators—for various small radio and appliance soldering—for sweating joints on small copper tubing and fittings up to 3/8 inch diameter.

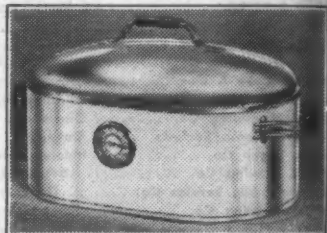
The small power requirement (300 watts) permits the use of the unit on any standard lighting circuit without danger of overloading the circuit or burning out fuses.

The Pliers are made of cast bronze (long slender, small jaws), so that they will fit in restricted spaces. The jaws are hinged at the back and have a spring, which holds them normally in the open position.

Further information can be obtained by writing the manufacturer.

Brannon Zephyr Gas Roaster

BRANNON, Inc., Detroit, Mich., has developed a unique gas appliance which provides complete meal cookery. Known as the Brannon



New Brannon Roaster

non Zephyr Gas Roaster, this appliance fits over two burners of a gas range and most of the cooking is done with the simmer burner or a very low flame on regular burners. The roaster pre-heats to 500 degrees in 7 1/2 minutes using full burners on 530 B.T.U. gas.

The capacity of the roaster, which is fully insulated and has a standard oven heat indicator, is 17 quarts and it has 1444 cubic inches of baking space. It can accommodate a large turkey or ham and can bake two layers of cake on the same level.

A specially designed baffle plate eliminates all products of combustion. Flames never touch the cooking insets as all heat is conducted by radiation and circulation. The roaster is furnished in all chromium plate finish, or black and chromium.

Complete details of this new appliance and the merchandising set-up may be obtained by writing Herbert Brannon, Brannon, Inc., 143 Third Avenue, Detroit, Mich.

TURBINE PUMPS

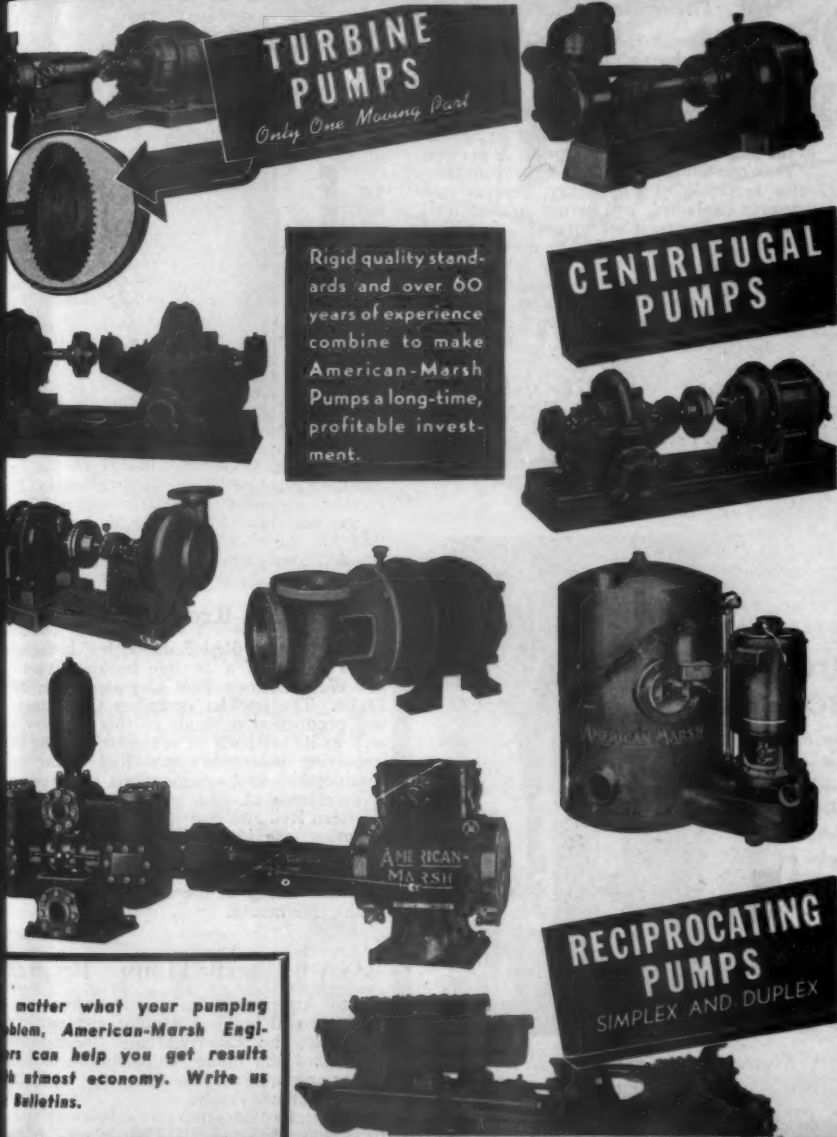
Only One Moving Part

Rigid quality standards and over 60 years of experience combine to make American-Marsh Pumps a long-time, profitable investment.

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RECIPROCATING PUMPS

SIMPLEX AND DUPLEX



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AMERICAN-MARSH PUMPS, INC.

Centrifugal, Turbine, Steam, and Power Pumps
BATTLE CREEK MICHIGAN

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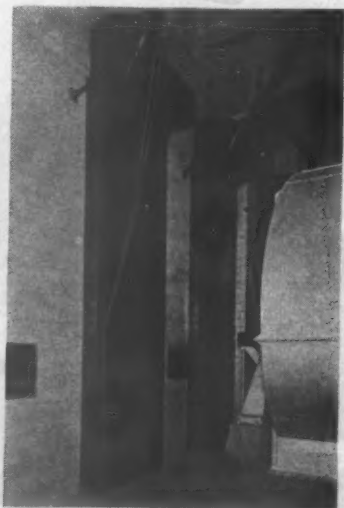
Manning, Maxwell & Moore, Inc. Increase Sales Force

IN contrast with the policy of other companies in reducing their sales forces, Manning, Maxwell & Moore, Inc., Bridgeport, Conn., manufacturers of valves, gauges, safety valves and control instruments for industrial plants, recently announced an increase in the general field organization of 25 per cent.

This one-fourth increase in the company's sales force, W. P. Bradbury, general sales manager explained, will permit smaller territories and more complete coverage. In periods of retarded buying more calls must be made in order to maintain the same sales volume. The enlarged sales force will enable the company to call on more new prospects and to see present customers more frequently.

Electrically Operated Doors Protect Lincoln Tunnel

IN the new Lincoln Tunnel, connecting New York and New Jersey, a constant flow of fresh air is provided by a ventilation tower



Kinnear Door Safeguards New Tunnel

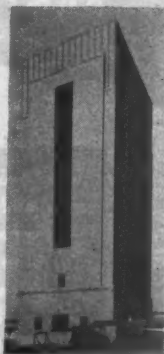
equipped with electrically operated rolling doors manufactured by The Kinnear Manufacturing Company, Columbus, Ohio.

The fresh air inlets in the tower are equipped with aluminum louvres and aluminum screens to prevent an influx of snow, sleet, rain, birds, insects and so forth. The rolling doors provide further protection to the motors and machinery in the tower. While these shutters are closed against inclement weather, their principal use is for protection against the smoke

APR. 14, 1938

hazard that might arise in case of a fire or conflagration in the immediate vicinity.

Electrically operated, each door can be opened or closed by a push-button control located near the door. Wired also in group



Ventilating Tower for new Lincoln Tunnel. Fresh air inlets are protected by Kinnear aluminum rolling shutter.

all the shutters on one side of the building can be controlled by one master button. For further convenience, a master button, located in the superintendent's office, is arranged so that all the doors in the building can be simultaneously opened or closed.

Western Red Cedar Poles

"WESTERN Red Cedar Poles" is the subject of a 24-page booklet issued by the Weyerhaeuser Pole Company, Lewiston, Idaho. The booklet describes the resources and production methods of this company, as well as its methods of seasoning, storing and inspecting poles. Western Red Cedar pole specifications and specifications for preservative treatment of cedar poles, as adopted by the Western Red and Northern White Cedar Association, are included with other specifications.

The general sales office of the Weyerhaeuser Pole Co. is in the Rand Tower, Minneapolis, Minnesota.

AGA "Liberty Home" Program

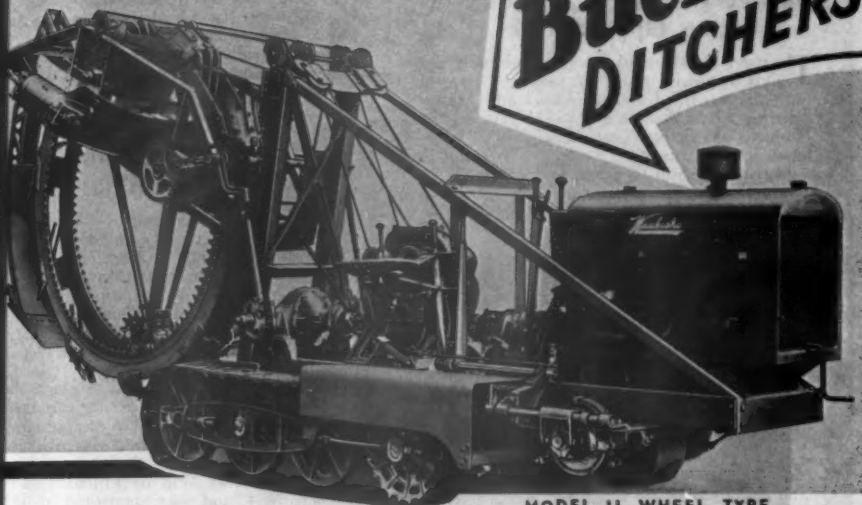
THE American Gas Association home planning and building promotion program is publicizing the "Liberty Homes"—a new name meaning a new home equipped with the few major gas appliances and laundry equipment to make living easier.

The promotion program includes an architects' competition for \$13,700 in prize money for winning "Liberty Home" designs and also a "Liberty Home" builders competition for \$10,000 in prize money.

A most important phase of the campaign is the actual construction of an outstanding "Liberty Home" to be arranged for by the local utility, tying in with the national activities and national publicity.

Utility companies can obtain complete

Investigate the advantages of **Buckeye DITCHERS**



MODEL 120 & 160 WITH SHIFTABLE BOOM . . CHAIN AND BUCKET TYPE

**MODEL 11 WHEEL TYPE.
SMALL - FAST - EASILY HANDLED.**

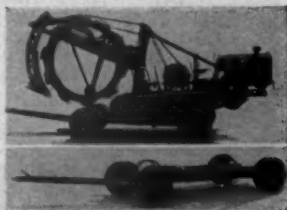
The latest boom type Buckeye ditchers have a wide range of usefulness. Trench 16" or more wide and to 12' 6" deep can be dug in hard-to-get-at places or on open country right-of-way, with equal facility. Digging boom may be shifted to right or left allowing the machine to cut trench within 4" of a curb or 10" from poles, buildings or other obstructions.

THEY SIMPLIFY YOUR DIFFICULT DITCHING JOBS

Short runs of small trench, lines that run close to obstructions, scattered jobs that call for moving the ditcher frequently, difficult soil conditions and a variety of other mean-to-handle situations are greatly simplified by the use of the Model 11 Buckeye. Built by the originators of the wheel-type ditcher, this small machine — only 52" wide over-all, digs trench from 10" to 22" wide and to 5½' deep at speeds up to 416" per minute.

It has the power and rugged strength to handle any ditching job within its range of trench width and depth and a range of digging speeds that enables you to keep any job moving at the maximum practical speed.

Quickly
moved from
one job to the
next on
Buckeye
built trailer.



**ENGINEERING DESIGN as
MODERN as TOMORROW**

THE BUCKEYE TRACTION DITCHER CO.

FINDLAY, OHIO, U. S. A.

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structions, organization plans and local publicity material without cost from the American Gas Association, 420 Lexington Ave., New York, N. Y.

Handee Workshop Affords New Sales Opportunities

To meet the demand for professionally designed power tools in smaller sizes at nominal cost, the Chicago Wheel and Manufacturing Co., Chicago, Ill., has developed the "Handee Workshop." Comprising 12 machines in one, the new device is a complete woodworking shop in a compact arrangement of practical units highly developed for accuracy and weighing only 40 pounds.



Handee Workshop

Merchandising plans of the manufacturers include a novel consumer appeal to the general mass market which offers new sales opportunities to utilities and dealers.

Sales tests conducted in retail electric shops of a large Middle West utility show very satisfactory records of purchases. Due to the fact that the Workshop is a packaged unit it appeals to the manager of the retail store.

The Handee Workshop is powered by the HW Type DeLuxe Model Hand-ee. Using the DeLuxe Handee as the power unit in the Workshop in no way detracts from its flexibility and portability for general off-hand use. Merely by removing two screws from the head stock in the lathe the DeLuxe can be taken out and used in the usual fashion for grinding, drilling, polishing, cutting, carving, sanding, sawing and engraving.

APR. 14, 1938

The Atlas Car & Mfg. Co. Issues Catalog

TRANSFORMER transfer cars, storage battery trucks and tractors, trucks, trailers, coal wagons, dump carts, and other special industrial car equipment are described in a 28-page catalog (Bulletin No. 1250) issued by The Atlas Car & Mfg. Co., Cleveland, Ohio.

Detailed information on equipment especially developed for power plant application is given in Bulletin No. 1237.

Plan Electrical Exposition In Philadelphia

THE Electrical Association of Philadelphia will stage an electrical exposition in Convention Hall, April 18th to 23rd, inclusive.

The spacious floor area of Convention Hall will be utilized to capacity by nationally-known manufacturers and Philadelphia distributors presenting a complete display of their products, more extensive in scope than that of any previous show.

Coincident with the exposition plans, the progressive activity of The Electrical Association is emphasized by C. K. West, president, who points out that the first International Electrical Exhibition "for the promotion of mechanic arts," was held in Philadelphia in September, 1884, and was sponsored by The Franklin Institute.

Develops Plastic Reflector

THE new 1,000 watt plastic reflector, manufactured by the F. W. Wakefield Brass Co., is said to be the largest plastic piece ever molded. According to Mr. A. F. Wakefield, president of this company which specializes in fabrication of small metal parts, this plastic reflector, which is made of Plaskon, seems to meet the requirements of reflecting materials now in use and on account of its uniformity, it seems to excel in some respects.

Because a plastic fixture weighs about one-fifth of a similar unit in conventional materials, it can be easily demonstrated by salesmen.

The illuminating characteristics of the new reflector show an overall efficiency of 83 per cent according to tests by the Electrical Testing Laboratories, which reports the maximum brightness of the reflecting bowl as 1.4 candle-power per square inch.

A T & T Appoints Williams

DOUGLAS Williams, General Advertising Manager of the Southwestern Bell Telephone Company, has been appointed an Assistant Vice-president in the Public Relations Department of the American Telephone and Telegraph Company as special contact man with the Public Relations Departments of the operating companies. The appointment was effective April 4, 1938.

Power and Distribution TRANSFORMERS



7500 Kva
3-phase
Water Cooled
Furnace Type

SOME of your largest customers who operate electric furnaces depend upon Pennsylvania Heavy Duty Transformers for this important service.

Bulletin 340 which illustrates Pennsylvania Power Transformers will be gladly supplied upon request.



Pennsylvania TRANSFORMER CO.

1701 ISLAND AVENUE, R.S.
PITTSBURGH • PENNA.

It's Something to be Worried About!

IN these days of mounting costs, higher taxation and keener competition within and without the industry, utilities cannot afford to continue indifferent to losses from current diversion. Such needless losses . . . frequently looked upon as a necessary evil, and accepted as a matter of course . . . can be completely eliminated by the use of Corcoran-Brown New Sequence Service Equipment at a cost that is but a fraction of the losses themselves.

Many utilities, through scores of thousands of installations, are enjoying the profitable advantages of CB equipment, not only in the prevention of current diversion, but through savings in time, labor and money in installation. Consult CB engineers, without obligation—they will be glad to cooperate with you in solving your problem of current diversion. Details and literature will be sent on request.



Electrical Department

CORCORAN-BROWN LAMP DIVISION

THE ELECTRIC AUTO-LITE COMPANY

4900 Spring Grove Avenue

Cincinnati, Ohio



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STOCK EXCHANGE

MAKE INSULATION MEET THE TEST OF A GOOD INVESTMENT

GOOD investments can't be judged by price alone. More important is the security provided by full and continued dividends.

Primarily an investment, insulation must be bought on the same basis . . . must prove its worth in terms of maximum cash returns on fuel savings.

Throughout the country, hundreds of power plants have assured themselves of these insulation dividends.

Johns-Manville Engineers, using J-M insulations, have played an important

part in increasing plant efficiency and in reducing operating costs.

Backed by J-M's 75 years of research and field experience on insulation problems, these engineers can help you select the insulation best suited to each individual requirement in your plant. They work with insulations of maximum efficiency and uniformity and are able to recommend the right amount and proper application.

For details, address Johns-Manville, 22 E. 40th St., N. Y. C.



Johns-Manville

**INDUSTRIAL
INSULATIONS**

An insulating material for every temperature . . . for every service condition

From the Early Period
of the Telegraph to the present
remarkable development in the field of Electricity

KERITE

has been continuously demonstrating the
fact that it is the most reliable and
permanent insulation known

THE KERITE INSULATED WIRE & CABLE COMPANY INC.
NEW YORK CHICAGO SAN FRANCISCO



R & S
gives
usage
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ONE-STEP METHOD OF BILL ANALYSES

R & S ONE-STEP METHOD gives complete customer usage data currently at lower cost than periodic studies. Controlled accuracy eliminates re-checking and re-analyzing necessitated by other methods. Direct compilation from your billing register, or other customary record, eliminates advance preparation, field work, and interruption in your regular routine.

R & S Bill Frequency Analyzer is the practical answer in making complete, accurate consumption analyses. Provides full information in a single step at about 50% less than the cost of former methods.



R & S Bill Frequency Analyzer: developed for our Utility Rate Service. The kw.-hrs. billed are entered on the adding machine keyboard. A tape is prepared of all items and a consumption total accumulated which serves as a control. At the same time—through this single operation—the bill cost for each kw.-hr. step is made by the electrically controlled accumulating registers.

RECORDING & STATISTICAL CORPORATION
102 MAIDEN LANE, NEW YORK, N. Y.
NEW YORK OFFICE: 102 MAIDEN LANE, NEW YORK, N. Y.

CUMULATIVE				
Kw.-Hrs. Billed	No. Bills	Consumption in Kw.-Hrs.	No. Bills	Consumption in Kw.-Hrs.
0	390		390	
1	209	209	599	209
2	1119	9219	1718	2448
3	370	1110	2088	3358
4	2114	9459	4202	13017
	374	1870	4576	13887
	3798	22708	8374	36875
	383	2961	8797	39836
50		50704	15145	90420
51		4557	15640	94947
52	217		20080	98967
53	255		20622	100889
54	10	17	20622	100889
55	217	12152	355134	355134
56	8	456	355134	355134
57	170	10304	355134	355134
58	7	413	355134	355134
59	161	9640	355134	355134
60	5	305	355134	355134
61	90	6076	355134	355134
62	2	189	355134	355134
63	102	6528	355134	355134

The ONE-STEP METHOD is a simple, accurate basis for rate making. The number of bills from the machine multiplied by kw.-hrs. gives the total consumption in each block. From this record cumulative totals of bills and kw.-hrs. are prepared through each step.

A continuance of frequent rate changes—the necessity of checking load-building activities—the pressing need for current data on customer usage—are but a few of the reasons many Operating and Holding Companies are using **R & S ONE-STEP METHOD** to analyze and compile information required for scientific rate making. They have not only reduced the costs on this work, but have obtained monthly or annual bill-frequency tables in a few days instead of weeks and months.

It is to your advantage to investigate **R & S** service on Current and Special Bill Analyses. Let us prove the economy of the **ONE-STEP METHOD** by an estimate on your requirements.

Recording & Statistical Corporation

Utilities Division

102 Maiden Lane, New York, N. Y.

Boston

Chicago

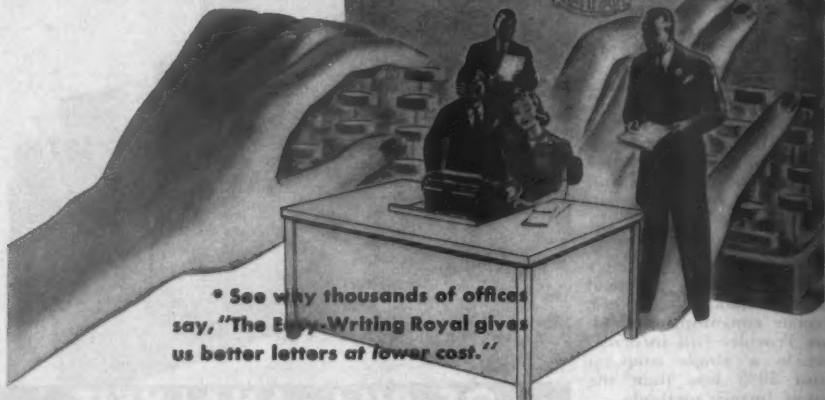
Detroit

Montreal

Toronto

HER HANDS AND A ROYAL
ARE ALL YOU NEED FOR

THE DESK TEST*



* See why thousands of offices say, "The Easy-Writing Royal gives us better letters at lower cost."

● Put an EASY-WRITING ROYAL in your secretary's hands. Let her use it for the next 10 days. Then check these 4 stand-out points of Royal superiority. (1) See how smoothly, how swiftly, yet unhurriedly, she types. (2) Study her typing—every word sharp, clear-cut; and (3) every paragraph

perfectly is aligned and spaced. (4) Examine the carbons carefully—all are firm and legible! Yes, Easy-Writing Royals do better work—they save time and money, and—The DESK TEST proves it! Royal Typewriter Company, Inc., 2 Park Ave., New York. Factory: Hartford, Conn.

* The DESK TEST is a fact-finding trial. It costs nothing, proves everything. Phone your Royal representative for information, or use the coupon below.

ROYAL

**WORLD'S NUMBER 1
TYPEWRITER**

World's largest company devoted exclusively to the manufacture of typewriters.



Copyright 1936, Royal Typewriter Company, Inc.

GET A 10-DAY DESK TEST FREE!

Royal Typewriter Company, Inc.
Department WPU-4148,
2 Park Avenue, New York City.

● Please deliver an Easy-Writing Royal to my office for a 10-day FREE DESK TEST. I understand that this will be done without obligation to me.

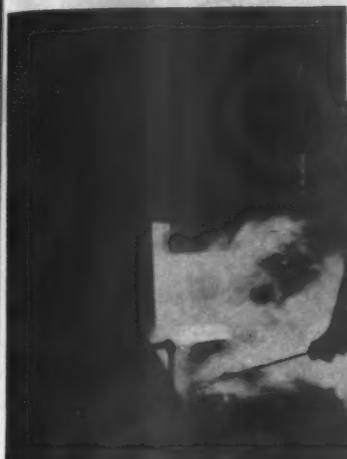
Name
Firm Name
Street
City State

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BETTER STEEL

IN DEPENDABLE DODGE TRUCKS

Amazing Advancements in Alloys
Help Dodge Trucks Set New Records for
Brilliant Performance and Economy



NICKEL-MOLYBDENUM RING GEARS—The Dodge truck ring gear... a vital part of the rear axle assembly... is made from an especially hard, tough alloy, forged

and processed in a special way. Picture above shows workmen forging the rough steel blank from which finished ring gear will be cut.



AUSTENITIC ALLOY EXHAUST VALVES—When full loads are hauled at top speeds, an inferno of heat is created where exhaust gases leave the engine. Dodge engineers use a special alloy... "Austenitic Steel" for exhaust valves on Dodge trucks to save money.



NI-CHROME CARBON STEEL UNIVERSAL JOINT BEARINGS—The roller bearings used in Dodge roller-bearing universal joints are a special type steel, chosen for extra hardness and toughness. Dodge engineers pioneered the use of roller-bearing universals in low-priced trucks.

VALVE SEAT INSERTS of Chromium-Molybdenum alloy—Dodge exhaust valves "seat" in these hard, tempered-alloy rings... pitting is checked, compression is improved, valve grinding expense is cut. Dodge engineers also pioneered this feature in low-priced trucks.

THE use of finer steels in many vital parts has helped Dodge trucks win their reputation for all-around goodness and dependability. For years Dodge also has led the field in giving you the most advanced features. Today, many truck buyers think of Dodge as a "high-priced" truck because of this famous Dodge inher-

ent truck quality... yet today Dodge is priced with the lowest! Phone your Dodge dealer and ask him to send a truck to your place of business for you to try without obligation.

DODGE
Division of Chrysler Corporation
**AT LOW COST, BUDGET TERMS
MAY BE ARRANGED**

This advertisement endorsed by the Engineering Department, DODGE Division of Chrysler Corporation



NEW DODGE 3-1 TON PICKUP—6-Cyl. "L"-Head Engine—136" Wheel-base. Ideal for Public Utilities use. Sturdy, efficient... built to do a lot of hauling at a real saving on gas, oil, tires, upkeep.

Tune in on the Major Bowes Original Amateur Hour, Columbia Network, every Thursday, 9 to 10 P. M., E. S. T.



YOU'RE THE UMPIRE

You can call Darlings Safe
at any stage of the game

The large barrel of the Darling Fire Hydrant assures an abundance of water at all times. There are five other important advantages.

In the never-ending game of operating a water-works system, you're the umpire. On supplies and equipment, your decisions are final. Specify Darlings—and you can be confident of reliable, economical operation for a long time to come.

Darling Products are designed to do a better job . . . built to stand up under operating conditions of every kind. That's why Darling users everywhere stick to Darlings.

It's a good idea to call in the Darling representative whenever operating problems arise. In all probability, Darling experience has encountered—and solved—these very problems before.

DARLING VALVE & MANUFACTURING CO.

Williamsport, Pa.

Representatives in:

NEW YORK
PHILADELPHIA
PITTSBURGH

HOUSTON
OKLAHOMA CITY
TOLEDO

EVANSTON, ILL.

Darling Valves are the choice of those who insist on dependable performance.

Six important features have won nation-wide approval for Darling Hydrants.

Performance records favor Darling Gate Valves.

For sewage disposal and filtration plants, the Darling Gate Valve offers advanced principles of operation and more reliable performance.

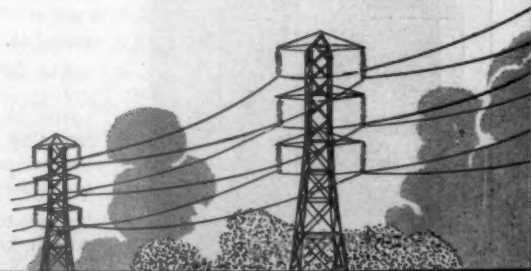
DARLING

GATE VALVES AND FIRE HYDRANTS

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April 14

To supplement your organization
...to save you the cost of breaking
in additional linemen ... to enable
you to avoid discharging new men
when a project nears completion.
Hoosier Crews
Are Ready



HOOSIER ENGINEERING COMPANY

CHICAGO

46 SO. 5TH ST., COLUMBUS, OHIO

NEW YORK

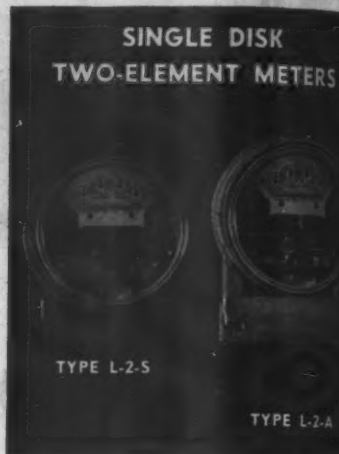
Canadian Hoosier Engineering Company, Ltd.
Montreal

RECTORS OF TRANSMISSION LINES

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SANGAMO TYPE L-2 METERS

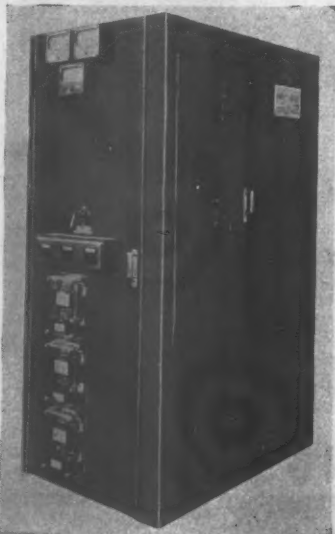
The Type L-2 two-element meters comprise two complete electro-magnetic elements driving a single disk. They are designed for modern "A" and "S" mountings, thus combining convenience in installation with a minimum of space requirements. Electrical characteristics meet all the requirements for modern meter accuracy and performance.



Modern Meters for Modern Loads

SANGAMO ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS

UNIT TYPE METAL-CLAD SWITCHGEAR



Unit Type "R. 1" 7.5 kv Switchgear

This new self-contained Metal-Clad Switchgear houses a 100,000 KVA, oil-blast circuit breaker, instrument transformers, insulated bus, cable terminators and accessories. The die-pressed steel panel door with concealed hinges carries the instruments, relays and control switches.

On the end of the steel enclosure is a door giving access to the circuit breaker test compartment. It is used in conjunction with an elevating type handling truck and a control wire jumper providing ready means for checking the breaker operation when removed from its cell.

The test compartment contains a control switch, control bus connections and alarm bell.

Ask for Special Publication No. 66

Delta-Star  **Electric Co**

2400 BLOCK FULTON STREET, CHICAGO, ILL.

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
EVEREADY
Trade Mark
**INDUSTRIAL
FLASHLIGHT**

"Stands the Gaff"

General all-around hard usage in industrial service has shown conclusively that the "EVEREADY" Industrial Flashlight can "Stand The Gaff". Bounced around on concrete floors and many other places are everyday shop experiences and each time this "EVEREADY" has come through unmarked. Its bright beam does not even flicker. The fact that it has no exterior metal parts is vitally important when working around exposed electrical connections and "hot" wires.

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N.Y. • Branches: Chicago, San Francisco

Unit of Union Carbide  and Carbon Corporation

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STORE LIGHTING



Minimax Stores, Houston, Texas, with "Louvre Lens" lighting. Two-fold merchandising objectives accomplished: (one) Indirect lighting for newness and modern appearance; and (two) downward or "punch" lighting delivered on merchandise displayed.

"Louvre Lens"

An ingenious innovation of moulded, heat-treated glass, that when used in conjunction with Indirect Lighting, unfolds vast new fields for Utility Companies' Lighting Departments.

The
EDWIN F.

COMPANY

2615 Washington Blvd.
St. Louis, Mo.

WORKING HAND-IN-HAND WITH UTILITY LIGHTING DEPARTMENTS

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GOING UP!

IN POPULARITY WITH IMPORTANT
UTILITY COMPANIES ALL OVER THE COUNTRY

AMCO

"ALL WEATHER" MANILA ROPE

IT'S ROT-PROOFED and WATER-PROOFED

See American First



CARPENTER MASTER-LIGHTS

- HIGH POWER HAND SEARCHLIGHTS.
- HIGH POWER HAND FLOODLIGHTS.
- HIGH POWER AUTOMOBILE SPOTLIGHTS.
- HIGH POWER SEARCHLIGHTS BUILT SPECIALLY FOR TRUCKS.
- ROOF MOUNTED AUTO SEARCHLIGHTS.
- HIGHWAY ACCIDENT WARNING LIGHTS.
- EMERGENCY CAR WARNING LIGHTS.
- WIG-WAG WARNING LIGHTS FOR FIRE, POLICE & AMBULANCES.
- RECHARGEABLE BATTERY-LIGHTS—DRY BATTERY-LIGHTS.
- EMERGENCY SEARCHLIGHTS AND FLOODLIGHTS.
- MARINE SEARCHLIGHTS.
- PORTABLE—WATCHMEN'S—REPAIR—FIRE—POLICE LIGHTS.

• Specialists in
Emergency Lighting
for Public Utilities.

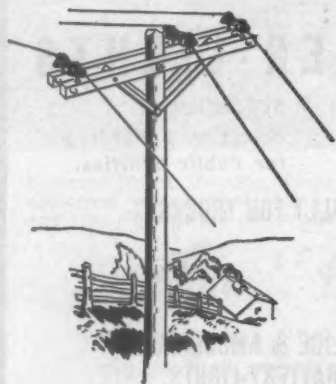
CARPENTER MFG. CO., Sidney St.
CAMBRIDGE, MASS.

HYDRAULIC TURBINES

FRANCIS AND HIGH SPEED RUNNERS

- ★ Penstocks
- ★ Butterfly Valves
- ★ Power Operated Rack Rakes
- ★ Gates and Gate Hoists
- ★ Electrically Welded Racks

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
Hydraulic Turbine Division
NEWPORT NEWS, VA.



*Better Lines
 are built with
 Porcelain Products Insulators*



PORCELAIN PRODUCTS, INC.
PARKERSBURG, W. VA., U. S. A.

HI-VOLTAGE INSULATORS

—SINCE 1894

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Details that are Essential for Good Service

Cover provided with liberal overhanging flange furnishes a definite shed for water.

Improved Cover Clamps secure cover tightly in place.

Porcelain Stud-Type Bushings are coordinated with winding insulation.

Advanced Core and Coil Assembly with reinforced end-turns and all the latest features to insure continuous service.

Copper-bearing steel tank is strong yet light in weight.

Wagner Coordinated Bushing Distribution Transformers

An investigation of utility companies' service records on distribution transformers will conclusively prove that stud-bushing type transformers with coordinated bushings and insulation are more reliable, have less failure and require less maintenance than other types of distribution transformers.

Wagner stud-bushing type HEB distribution transformers are equipped with bushings that are coordinated with the winding insulation. In other words, the insulation level of the windings of a Wagner type HEB transformer is higher than the insulation level of the bushings

and the two are properly coordinated to cause line surges to flashover the bushings on the outside of the tank.

There are many other details that are essential for a transformer to give satisfactory service. A few of the essential features of Wagner type HEB transformers are pointed out above. Wagner transformers have many other improved features, which for the lack of space cannot be described here. If you desire full information on these transformers, mail the coupon shown below. It was placed there for your convenience.

Above is shown a Wagner 15-kva, 2400-volt, type HEB stud-bushing-type distribution transformer. It has coordinated bushings and insulation and is self-protecting against lightning and, therefore, inherently a surge-protected transformer.

Send today for literature
on these transformers

Wagner Electric Corporation
6400 Plymouth Avenue, Saint Louis, Missouri

YD1M-19A

Gentlemen:

I am interested in your Stud-Bushing type HEB distribution transformers. Will you please send me full information on these transformers.

Name

Firm

Address

City State


Wagner Electric Corporation
6400 Plymouth Avenue, Saint Louis, U.S.A.

Motors Transformers Fans Brakes

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A Barrier That Says
"STAY OUT"

... no ifs or ands about it!



Kinnear Rolling Grilles are impassable barricades when closed. Remarkably strong and dependable! Burglars, marauders, fire-bugs, and agitators are kept out, without sacrificing air, light or vision. Perfectly counter-balanced and coiling above the opening, they are operated with the convenience of a window shade . . . leaving the opening clear and unobstructed. Made in any size, for motor or manual operation. Easy to install in old or new doorways, gateways, corridors, etc., they are ideal for many uses. Write for complete details.

The KINNEAR Mfg. Co.
2060-80 Fields Ave., Columbus, Ohio

KINNEAR
ROLLING GRILLES

THIS ADVERTISEMENT IS APPEARING IN HOTEL AND RESTAURANT PUBLICATIONS

Cut waste in coffee brewing



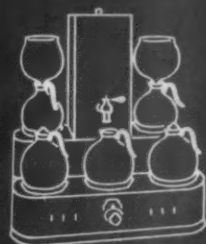
IMPROVE ITS FLAVOR with ROBERTSHAW AUTOMATIC HEAT CONTROLS



When a coffee or water urn blows off steam you burn up money! Water can't get hotter than 212 degrees. There's no sense in pouring heat into that urn when you can keep the water hot with one-quarter the gas. That's why urns equipped with Robertshaw Automatic Heat Controls save many dollars for users. They automatically regulate the water or coffee just under the boiling point. You can't waste gas! In fact, thousands of hotels and restaurants actually save the cost of Robertshaw Controls many times over.

With Robertshaw Controls you keep brewed coffee flavorsome and sweet over longer periods and keep it at just the right serving temperature. That has saved many restaurants as much as 33 1/3% in cream bills. Use Robertshaw Controls, get coffee with real coffee flavor.

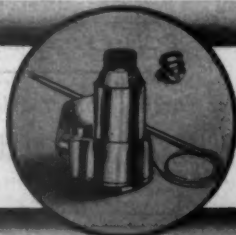
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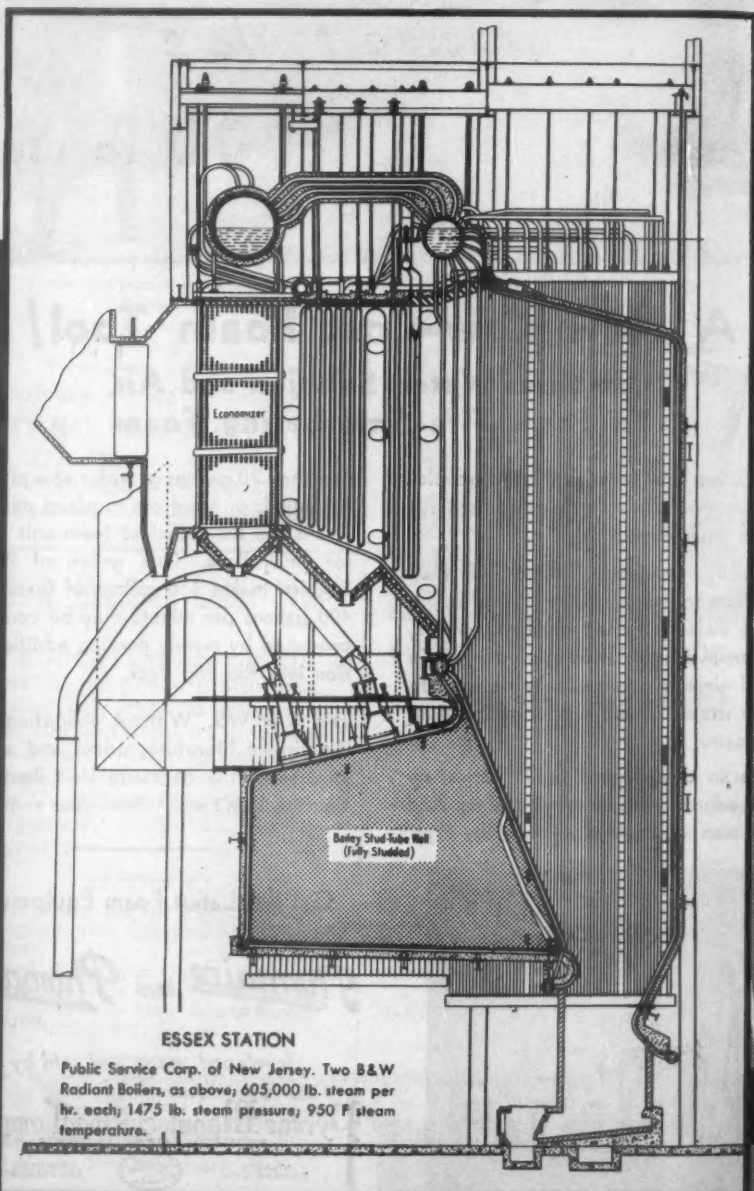
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INDEX TO ADVERTISERS

A		K	
Aluminum Company of America	39	Kerite Insulated Wire & Cable Company, Inc.	32
American Coach & Body Company, The	11	The	32
American Engineering Company	23	Kinner Manufacturing Company, The	32
American Manufacturing Company	61	Klein, Mathias & Sons	32
American Marsh Pumps, Inc.	45		
*American Street Illuminating Company			
B		L	
Babcock & Wilcox Company, The	68-69	Lindemann, A. J. & Hoverson Company	18
Barber Gas Burner Company, The	26	Link-Belt Company	71
Barco Manufacturing Company	25		
*Bartlett Manufacturing Company			
Bethlehem Steel Company	22		
Black & Decker Manufacturing Company	30		
Black & Veatch, Consulting Engineers	73		
Buckeye Traction Ditcher Company, The	47		
Burnham Boiler Corporation	34		
Burroughs Adding Machine Company	13		
C		M	
Carpenter Manufacturing Company	61	Merco Nordstrom Valve Company	37
Carter, Earl L., Consulting Engineer	73		
Cheney, Edward J., Engineer	73		
Chevrolet Motor Division of General Motor Sales Corp.	35		
Cities Service Company	40		
Cleveland Tractor Company, The	24		
*Cleveland Trencher Company			
Collier, Barron G., Inc.	36		
Combustion Engineering Company, Inc.	15		
Commonwealth Mfg. Corp.	21		
Connolly Iron Sponge & Governor Company	30		
Corcoran-Brown Lamp Company	50		
Crescent Insulated Wire & Cable Company, Inc. 19			
D		N	
Darling Valve & Manufacturing Company	56	National Carbon Company, Inc.	59
Davey Tree Expert Company	32	Neptune Meter Company	38
Delta-Star Electric Co.	58	Newport News Shipbuilding & Dry Dock Company	62
Dietograph Products Company, Inc.	28		
Dodge Division of Chrysler Corp.	55		
E		O	
Egry Register Company, The	70	Okenite Company, The	5
Electric Storage Battery Company, The	18		
Electrical Testing Laboratories	32		
Elliott Company	42		
F		P	
Ford, Bacon & Davis, Inc., Engineers	73	Pennsylvania Transformer Company	49
Foster Wheeler Corporation	3	Pittsburgh Equitable Meter Company	37
		Pittsburgh Plate Glass Company	31
		Pittsburgh Reflector Company	74
		Plymouth Division of Chrysler Corp.	7
		Porcelain Products, Inc.	62
		Pyrene Manufacturing Company	67
G		R	
General Electric Company Outside Back Cover		Railway & Industrial Engineering Company	21
General Motors Truck & Coach Division	27	Rains, Robert S., Special Consultant	73
*Graver Tank and Manufacturing Co.	29	Recording & Statistical Corp.	33
Grinnell Company, Inc.	29	Remington-Rand, Inc.	9
Guth, Edwin F., Company, The	60	Ridge Tool Company, The Inside Back Cover	
		Riley Stoker Corporation	20
		Robertshaw Thermostat Company	65
		Royal Typewriter Company, Inc.	54
H		S	
Hoosier Engineering Company	57	Safety Equipment Service Company, The	41
		Safety Gas Main Stopper Company	66
		Sanderson & Porter, Engineers	73
		Sangamo Electric Company	58
		Silex Company, The Inside Front Cover	
		Socony-Vacuum Oil Company, The	26
		Spooner & Merrill, Inc., Consulting Engineers	73
		Stanley Electric Tool Division	66
I		T	
International Business Machines Corporation	33	Thomson Meter Corporation	38
International Harvester Company, Inc.	17		
J		V	
Jackson & Moreland, Engineers	73	Victor Insulators, Inc.	21
Jensen, Bowen & Farrell, Engineers	73	Vulcan Soot Blower Corp.	43
Johns-Manville Corporation	51		
*Johnston and Jennings Co., The			
*Jones & Laughlin Steel Corp.			
W		W	
		Wagner Electric Corporation	63
		Wall, P., Mfg. Supply Co.	26
		Wolf, Mark, Public Utility Consultant	73

*Fortnightly advertisers not in this issue.

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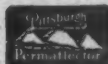
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Then he proceeded to demonstrate the effects of gas pressure upon the characteristics of arcs—showing, by ultra-high-speed motion pictures, the change in arc properties resulting from different gas pressures. He told of arc temperatures as high as 11,000 F, which he has measured by means of sound waves, and how, at such high temperatures, gas molecules containing two atoms are broken down into separate atoms with entirely different properties.

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*Dr. Suits was recently named, by Eta Kappa Nu, "the youngest electrical engineer of 1937."

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